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**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA**

**Case No. 3:23-cv-04597-EMC**

**Filed:** September 7 2023

**District Judge:** Honorable Edward M. Chen

**ASHLEY GJOVIK, an individual,**

Plaintiff,

v.

**APPLE INC, a corporation,**

Defendant.

**MOTION FOR JUDICIAL NOTICE**

**Hearing**

Dept: Courtroom 5, 17th Floor (Virtual)

Date: February 8, 2024 1:30 p.m.

*Plaintiff Does Not Require Oral Arguments*

*Concurrent with:*

*Defendant's Motion to Dismiss (Doc #30)*

*P's Opposition to Motion to Dismiss (Doc #33)*

**Motion for Judicial Notice Cover Page: Exhibit 8**

**2016 - California DTSC**

**2017 - North Carolina**

***Declaration:*** *I verified the authenticity of each of these documents. A true and correction version of each document is attached in each exhibit. I declare under penalty of perjury this is true and correction. /s/ Ashley M. Gjovik (December 25 2023).*

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**MOTION FOR JUDICIAL NOTICE  
EXHIBIT**

**SECTION:**

California DTSC v Apple

2016

Cal. EPA Press Release

# News Release

T – 19 – 16

Barbara A. Lee, Director

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## FOR IMMEDIATE RELEASE

December 6, 2016

Contact: Sanford (Sandy) Nax

(916) 327-6114

[Sanford.Nax@dtsc.ca.gov](mailto:Sanford.Nax@dtsc.ca.gov)

## Apple Agrees to Pay \$450,000 to Settle Hazardous Waste Violations

**SACRAMENTO** – A settlement agreement between the California Department of Toxic Substances Control (DTSC) and Apple Inc. was filed in Santa Clara County Superior Court by the California Attorney General's Office on behalf of DTSC.

Apple has agreed to pay \$450,000 to DTSC and to increase facility inspections to settle allegations of hazardous waste violations at facilities in Silicon Valley. The settlement stems from violations that DTSC found during a June 13, 2013 inspection of an Apple electronic waste shredding facility in Sunnyvale and a subsequent review of records. DTSC discovered that Apple had opened, operated and then closed an electronic waste shredding facility from 2011 to 2012 in Cupertino without DTSC's knowledge and without complying with universal waste regulations, including the mismanagement of metal dust from shredder operations.

Apple processed about 1.1 million pounds of electronic waste at the Cupertino facility before closing it in January 2013, and shifting operations to a facility in Sunnyvale. In Sunnyvale, Apple dismantled, shredded and disposed of more than 800,000 pounds of electronic waste before notifying DTSC of the plant's existence and complying with all universal waste regulations.

Universal waste, such as electronic devices, batteries and other discarded consumer products containing hazardous substances, are subject to California universal waste regulations. Since they are considered a type of hazardous waste, universal waste handlers who accept universal waste must notify DTSC and handle the waste according to management standards required by law.

The shredding process produces a fine dust that is collected by a baghouse and filter system. The dust is classified as a hazardous waste due to the concentration of metals. The shredded devices are shipped offsite for recycling and sold as scrap metal. Apple, however, shipped hazardous dust and floor sweep from Sunnyvale to a recycling facility in Roseville that was not authorized to handle Apple's hazardous waste.

After the inspection, records review and dust sampling, DTSC alleged the following violations:

After the inspection, records review and dust sampling, DTSC alleged the following violations.

- Transportation of hazardous waste without a proper manifest
- Failing to report and track exports of hazardous waste
- Failing to label or otherwise mark used oil containers as “hazardous waste”
- Failing to provide notice of closure for the facility in Cupertino
- Failing to submit a written closure plan and cost estimate for closing the facility in Cupertino and for eventual closure of the one in Sunnyvale
- Failing to demonstrate financial assurance to fund the eventual closure of the two facilities

“Compliance with the hazardous waste law is fundamental in protecting the health of workers and communities as well as the environment,” said Keith Kihara, Chief of DTSC’s enforcement division. “We are encouraged by the settlement and that Apple is working with us to take the necessary steps to comply with California’s hazardous waste law.”

As part of the settlement, Apple has agreed to maintain a closure plan and financial insurance for the facility, conduct weekly inspections of areas where hazardous waste is generated and stored, and will ensure that electronic waste, including shredded electronic waste, is properly labeled and not put into containers with dust derived from its shredding operations.

[View the Complaint for Civil Penalties](#)

[View the Final Judgment Pursuant to Stipulation](#)

**# # #**

FOR GENERAL INQUIRIES: Contact the Department of Toxic Substances Control by phone at (800) 728-6942 or visit [www.dtsc.ca.gov](http://www.dtsc.ca.gov). To report illegal handling, discharge, or disposal of hazardous waste, call the Waste Alert Hotline at (800) 698-6942.

DTSC’s Mission is to protect California’s people, communities, and environment from toxic substances, to enhance economic vitality by restoring contaminated land, and to compel manufacturers to make safer consumer products.



CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
**Department of Toxic Substances Control**

## News Release

**T – 19 – 16**  
**Barbara A. Lee, Director**

**FOR IMMEDIATE RELEASE**  
December 6, 2016

Contact: Sanford (Sandy) Nax  
(916) 327-6114

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Universal waste, such as electronic devices, batteries and other discarded consumer products containing hazardous substances, are subject to California universal waste regulations. Since they are considered a type of hazardous waste, universal waste handlers who accept universal waste must notify DTSC and handle the waste according to management standards required by law.

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After the inspection, records review and dust sampling, DTSC alleged the following violations:

- Transportation of hazardous waste without a proper manifest
- Failing to report and track exports of hazardous waste
- Failing to label or otherwise mark used oil containers as "hazardous waste"
- Failing to provide notice of closure for the facility in Cupertino

- Failing to submit a written closure plan and cost estimate for closing the facility in Cupertino and for eventual closure of the one in Sunnyvale
- Failing to demonstrate financial assurance to fund the eventual closure of the two facilities

“Compliance with the hazardous waste law is fundamental in protecting the health of workers and communities as well as the environment,” said Keith Kihara, Chief of DTSC’s enforcement division. “We are encouraged by the settlement and that Apple is working with us to take the necessary steps to comply with California’s hazardous waste law.”

As part of the settlement, Apple has agreed to maintain a closure plan and financial insurance for the facility, conduct weekly inspections of areas where hazardous waste is generated and stored, and will ensure that electronic waste, including shredded electronic waste, is properly labeled and not put into containers with dust derived from its shredding operations.

Here is a link to the Complaint for Civil Penalties:

[http://www.dtsc.ca.gov/HazardousWaste/Projects/upload/Apple\\_Complaint.pdf](http://www.dtsc.ca.gov/HazardousWaste/Projects/upload/Apple_Complaint.pdf)

Here is a link to the Final Judgment Pursuant to Stipulation:

[http://www.dtsc.ca.gov/HazardousWaste/Projects/upload/Apple\\_Final-Judgment.pdf](http://www.dtsc.ca.gov/HazardousWaste/Projects/upload/Apple_Final-Judgment.pdf)



# # #

FOR GENERAL INQUIRIES: Contact the Department of Toxic Substances Control by phone at (800) 728-6942 or visit [www.dtsc.ca.gov](http://www.dtsc.ca.gov). To report illegal handling, discharge, or disposal of hazardous waste, call the Waste Alert Hotline at (800) 698-6942.

***The mission of DTSC is to protect California’s people and environment from harmful effects of toxic substances by restoring contaminated resources, enforcing hazardous waste laws, reducing hazardous waste generation, and encouraging the manufacture of chemically safer products.***

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**MOTION FOR JUDICIAL NOTICE  
EXHIBIT**

**SECTION:**

California DTSC v Apple

2016

Complaint

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Exempt from Fees Pursuant to  
Government Code section 6103

*Attorneys for Plaintiff People of the State of  
California, ex. rel. Department of Toxic Substances  
Control*

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
COUNTY OF SANTA CLARA

**PEOPLE OF THE STATE OF  
CALIFORNIA, EX. REL., BARBARA A. LEE,  
DIRECTOR OF THE DEPARTMENT OF TOXIC  
SUBSTANCES CONTROL,**

Plaintiff,

**v.**

**APPLE INC., A CALIFORNIA CORPORATION,**

Defendant.

Case No.

**COMPLAINT FOR CIVIL PENALTIES  
AND INJUNCTIVE RELIEF**

**[Health and Safety Code, §§ 25100 et seq.]**

Plaintiff, the People of the State of California, *ex rel.* Barbara A. Lee, Director of the  
Department of Toxic Substances Control, alleges:

**NATURE OF THE ACTION**

1. This is a civil action for injunctive relief and civil penalties under California's  
Hazardous Waste Control Law ("HWCL"), Health and Safety Code § 25100 *et seq.*, and  
regulations contained in California Code of Regulations, title 22, division 4.5, section 66260.1 et

seq. (“Title 22”), pertaining to the storage, handling, management, treatment and disposal of hazardous waste, and the maintenance of closure plans and financial assurance mechanisms for closure and liability. The HWCL and its implementing regulations establish comprehensive cradle to grave standards for the generation, storage, transportation, treatment and disposal of hazardous waste in California. The California Department of Toxic Substances Control (“Department”) is the state agency organized and existing pursuant to sections 58000 et seq. of the California Health and Safety Code. The Department is the state agency responsible for administering and enforcing the HWCL and its implementing regulations. (Health & Saf. Code, § 25100 et seq.; Cal. Code Regs., tit. 22, § 66260.1 *et seq.*)

2. Plaintiff seeks injunctive relief and civil penalties against defendant pursuant to sections 25181, 25184, 25189 and 25189.2 of the Health and Safety Code for violations of the HWCL and Title 22.

3. Pursuant to an on-site inspection on June 13, 2013, of a facility operated by Defendant Apple, Inc., (“Apple”) in Sunnyvale, California and a subsequent review of records, the Department discovered various violations of the HWCL and its implementing regulations at electronic waste shredding facilities operated by Apple in Santa Clara County. Upon further investigation, the Department discovered that Apple had opened, operated and closed an electronic waste processing facility in Cupertino, California with inadequate regulatory oversight or compliance with applicable environmental laws. In this action, the Department seeks injunctive relief and civil penalties against Apple for the violations of the HWCL and Title 22.

## PLAINTIFF

4. Barbara A. Lee is the Director of the Department.

5. Pursuant to Sections 25181, subdivision (a) and 25182 of the California Health and Safety Code, the Attorney General may, at the Department’s request, commence an action for civil penalties and injunctive relief under the HWCL in the name of the People of the State of California. The Department has made such a request to the Attorney General.

**DEFENDANT**

6. Defendant Apple is a California corporation, with its principal place of business in Cupertino, California.

7. Defendant Apple is a “person” as defined in Health and Safety Code section 25118.

8. In this Complaint when reference is made to any act or omission of defendant Apple, such allegations shall include the acts and omissions of owners, officers, directors, agents, employees, contractors, affiliates, and/or representatives of defendant Apple while acting within the course and scope of their employment or agency on behalf of defendant Apple during the relevant time periods.

**JURISDICTION AND VENUE**

9. This Court has jurisdiction pursuant to Cal. Const., art. VI, § 10, and Health and Safety Code section 25181, subdivision (a).

10. Venue is proper in Santa Clara County Superior Court under Health and Safety Code section 25183, because the violations at issue occurred in Santa Clara County, and because Apple’s principal place of business is in Santa Clara County.

**HWCL STATUTORY AND REGULATORY BACKGROUND**

11. The State of California has enacted a comprehensive statutory and regulatory framework for the generation, handling, treatment, transport and disposal of hazardous wastes. The framework contained in the HWCL, and its implementing regulations, mandate a “cradle to grave” registration, tracking, storage, treatment and disposal system for the protection of the public from the risks posed by hazardous wastes. Except where otherwise expressly defined in this Complaint, all terms shall be interpreted consistent with the HWCL and Title 22.

12. California administers the HWCL in lieu of federal administration of the federal Resource Conservation and Recovery Act (“RCRA”), which is codified at 42 United States Code sections 6901 et seq., pursuant to Health & Safety Code sections 25101, subdivision (d), and 25159-25159.9. Federal law prohibits California from imposing any requirements less stringent than those authorized under RCRA. (42 U.S.C. § 6929.) The HWCL has a more inclusive definition of “hazardous waste” than does federal law. Hazardous wastes that are regulated under

1 California law but not federal law are known as “non-RCRA hazardous wastes.” (Health & Saf.  
2 Code, § 25117.9.)

3 13. The HWCL charges the Department with the responsibility to adopt standards and  
4 regulations for the management of hazardous waste to protect the public health and environment.  
5 (Health & Saf. Code, § 25150.) Accordingly, the Department has promulgated regulations setting  
6 forth numerous and extensive environmental and health -protective requirements for the day-to-  
7 day operation of hazardous waste generators, transporters, as well as owners and operators of  
8 hazardous waste facilities. (See Cal. Code. Regs., tit. 22, § 66262.1 et seq.)

9 14. Under Section 25189 of the Health and Safety Code, a person who intentionally or  
10 negligently violates a provision of the HWCL, or any permit, rule, regulation, standard, or  
11 requirement issued or promulgated pursuant to the HWCL, shall be liable for a civil penalty not to  
12 exceed twenty-five thousand dollars (\$25,000) for each separate violation or, for continuing  
13 violations, for each day that the violation continues. Alternatively, a person may be strictly liable  
14 for any such violation under Section 25189.2. For continuing violations, the HWCL authorizes  
15 the Court to impose a penalty of up to twenty five thousand dollars (\$25,000) for each day that a  
16 violation continues. (Health & Saf. Code, §§ 25189, subd. (b) and 25189.2, subd. (b).) A person  
17 may not be held liable for a civil penalty imposed under section 25189 and for a civil penalty  
18 imposed under section 25189.2 for the same act. (Health & Saf. Code, § 25189.2, subd. (f).)

19 15. The HWCL, at Health and Safety Code sections 25181 and 25184, authorizes and  
20 directs the Court to enjoin any ongoing or potential violation of the HWCL.

21 16. Section 25181 of the Health and Safety Code provides that when the Department  
22 determines that any person has engaged in, is engaged in, or is about to engage in any acts or  
23 practices which constitute or will constitute a violation of any provision of the HWCL or any rule  
24 or requirement issued or promulgated thereunder, and when requested by the Department, the  
25 Attorney General may make application to the superior court for an order enjoining such acts or  
26 practices, or for an order directing compliance, and upon a showing by the Department that such  
27 person has engaged in or is about to engage in any such acts or practices, a permanent or  
28 temporary injunction, restraining order, or other order may be granted.

17. Health and Safety Code section 25184 provides that in civil actions brought pursuant to the HWCL in which an injunction or temporary restraining order is sought:

It shall not be necessary to allege or prove at any stage of the proceeding that irreparable damage will occur should the temporary restraining order, preliminary injunction, or permanent injunction not be issued; or that the remedy at law is inadequate, and the temporary restraining order, preliminary injunction, or permanent injunction shall issue without such allegations and without such proof.

18. Universal wastes such as electronic devices, batteries and other consumer products that contain hazardous substances are a subset of hazardous waste subject to the Department's universal waste regulations, title 22, division 4.5, chapter 23 of the California Code of Regulations, as well as other applicable provisions of law.

19. Discarded electronic devices are a universal waste, and any person who manages such devices is a universal waste handler. (22 Cal. Code Regs. § 66273.3.)

20. A universal waste handler who manages a universal waste and its integral components is generally authorized by the Department to conduct those activities, provided the universal waste handler complies with all the applicable requirements of the regulations. (22 Cal. Code Regs. § 66273.70.)

## ALLEGATIONS COMMON TO ALL CLAIMS

21. During some part of 2011 and throughout 2012, Apple operated a facility at 10501 Tantau Avenue in Cupertino, California, at which it dismantled, shredded and disposed of Apple brand electronic devices (*hereafter*, “Tantau Avenue Facility”). In January 2013, Apple ceased these operations at the Tantau Avenue Facility, and relocated equipment and operations from the Tantau Avenue Facility to 1330 Kifer Road in Sunnyvale (*hereafter*, “Sunnyvale Facility”). In or about January 2013, Apple began similar processes of dismantling, shredding and disposing of its electronic devices at the Sunnyvale Facility.

22. Apple's protocol for disposing and processing discarded electronic devices at its shredding facilities, including the Tantau Avenue Facility and the Sunnyvale Facility, includes

1 removing batteries from the devices for separate handling before the devices are shredded. Apple  
2 ships waste lithium batteries off-site for purposes of recycling, and has exported these batteries at  
3 times to foreign countries for this purpose.

4 23. Apple's electronic waste shredding operations produce a fine dust that is collected,  
5 bagged and removed daily ("baghouse dust"). Apple personnel use a vacuum device that collects  
6 a fine dust, among other things, from the floors of the facility ("floor sweep").

7 24. After shredding the electronic devices, Apple ships the shredded waste off-site for  
8 recycling as scrap metal. Historically, Apple shipped baghouse dust, shredded waste, and floor  
9 sweep waste to Sims Recycling Solutions, Inc. in Roseville, California (SRS Roseville).

10 25. Department personnel inspected the Sunnyvale Facility on June 13, 2013. During  
11 this inspection, Department personnel observed Apple's waste handling practices and took  
12 samples of the baghouse dust and floor sweep waste.

13 26. The Department tested samples of the baghouse dust and floor sweep waste taken  
14 from the Sunnyvale Facility and found that these wastes contained hazardous constituents,  
15 including hazardous levels of copper and zinc, and particles less than 100 microns in size.

16 27. Through a review of Apple's records and subsequent investigation, the Department  
17 discovered that Apple had processed similar electronic waste using similar operations and  
18 practices at the Tantau Avenue Facility, prior to closing that facility and transferring operations to  
19 the Sunnyvale Facility.

20 28. Apple generated, treated and, at times, transported universal waste as a result of  
21 dismantling, shredding and disposing of discarded electronic devices at both the Tantau Avenue  
22 and Sunnyvale Facilities.

23 29. According to Apple's records, Apple processed approximately 1,121,847 pounds of  
24 electronic waste at the Tantau Avenue Facility in 2011 and 2012. Apple processed this electronic  
25 waste without informing the Department of the existence of this facility, or complying with the  
26 Department's universal waste regulations.

27 30. Apple processed approximately 803,518 pounds of electronic waste at the Sunnyvale  
28 Facility prior to informing the Department of the existence of this facility, or complying with all

of the requirements of the Department's universal waste regulations.

31. As a result of the Department's June 13, 2013 inspection of the Sunnyvale Facility, the Department's review of Apple's records and samples taken by the Department during the inspection, the Department noted the following violations:

- Failure to submit written closure plan and cost estimate for closure for Tantau Avenue and Sunnyvale Facilities (Cal. Code Regs, tit. 22, § 66273.76, subds. (a) and (b)).
- Failure to demonstrate financial responsibility for liability for Tantau Avenue and Sunnyvale Facilities (Cal. Code Regs., tit. 22, § 66273.76, subd. (c)).
- Failure to demonstrate financial assurance to fund the cost of closure for Tantau Avenue and Sunnyvale Facilities (Cal. Code Regs., tit. 22, § 66273.76, subd. (d)).
- Failure to provide notice of closure for Tantau Avenue Facility (Cal. Code Regs., tit. 22, § 66273.77, subd. (a)).
- Causing treatment and disposal of hazardous waste at an unauthorized point, at and from Sunnyvale Facility (Health & Saf. Code, § 25189.2, subds. (c) and (d)).
- Transportation of hazardous waste without manifests from Sunnyvale Facility (Health & Saf. Code §25160, Cal. Code Regs., tit. 22, §§ 66262.20, 66262.23, 66268.7).
- Failure to report and track export of hazardous waste from Tantau Avenue Facility (Health & Saf. Code § 25162.1, Cal. Code Regs, tit. 22, §§ 66273.40, 66262.53, 66262.56, 66262.57).
- Failure to label or otherwise clearly mark used oil containers as "Hazardous Waste" (Cal. Code Regs., tit. 22, § 66262.34, subd. (f)).

#### FIRST CAUSE OF ACTION

##### (Failure to maintain closure plan and cost estimate for closure) (Cal. Code Regs., tit. 22, § 66273.76, subds. (a) and (b)) (Tantau Avenue Facility)

32. The People re-allege paragraphs one through 31, above.

33. California Code of Regulations, title 22, section 66273.76, requires that no later than 30 days prior to beginning treatment of universal waste, such as electronic devices, the operator

of the facility must submit a closure plan to the Department that meets all of the requirements of subdivision (a), and a cost estimate for closure that meets the requirements of subdivision (b).

34. Apple dismantled, shredded and disposed of electronic devices at the Tantau Avenue Facility during 2011 and 2012 without ever submitting a closure plan or cost estimate for closure to the Department.

35. Apple is liable for a civil penalty under Health and Safety Code section 25189 or, alternatively, under section 25189.2, for treating electronic waste at the Tantau Avenue Facility without ever submitting a closure plan and closure cost estimate to the Department, in violation of California Code of Regulations, title 22, section 66273.76, subdivisions (a) and (b).

## SECOND CAUSE OF ACTION

### **(Failure to maintain closure plan and cost estimate for closure) (Cal Code Regs., tit. 22, § 66273.76, subds. (a) and (b)) (Sunnyvale Facility)**

36. The People re-allege paragraphs one through 31, above.

37. Apple began dismantling, shredding and disposing of electronic devices, a universal waste, at the Sunnyvale Facility in January 2013 without having submitting a closure plan or cost estimate for closure to the Department at least 30 days prior to beginning these operations.

38. Apple did not submit a closure plan for the Sunnyvale Facility to the Department, as required by subdivision (a) of section 66273.76, until November 18, 2013.

39. Apple first submitted a cost estimate for closure of the Sunnyvale Facility to the Department, according to the requirements of subdivision (b) of section 66273.76, on November 18, 2013.

40. Apple is liable for a civil penalty under Health and Safety Code section 25189 or, alternatively, under section 25189.2, for treating electronic waste at the Sunnyvale Facility for more than 10 months prior without a closure plan and closure cost estimate required by California Code of Regulations, title 22, section 66273.76, subdivisions (a) and (b).

**THIRD CAUSE OF ACTION**

**(Failure to document financial assurance for closure)  
(Cal. Code Regs., tit. 22, § 66273.76, subd. (d))  
(Tantau Avenue Facility)**

41. The People re-allege paragraphs one through 31, above.

42. California Code of Regulations, title 22, section 66273.76, subdivision (d) requires that, no later than 30 days prior to beginning treatment of universal waste, the operator of the treatment facility must submit to the Department documentation demonstrating financial assurance for the purpose of funding the cost of closure for that facility.

43. Apple dismantled, shredded and disposed of electronic devices, a universal waste, at the Tantau Avenue Facility during some period of time in 2011 and for all of 2012, without ever submitting documentation of financial assurance for closure of the Facility to the Department.

44. Apple is liable for a civil penalty under Health and Safety Code section 25189 or, alternatively, under section 25189.2, for treating electronic waste for more than one year at the Tantau Avenue Facility without providing documentation of financial assurance for the cost of closure to the Department, in violation of California Code of Regulations, title 22, section 66273.76, subdivision (d).

**FOURTH CAUSE OF ACTION**

**(Failure to document financial assurance for closure)  
(Cal. Code Regs., tit. 22, §§ 662673.76, subd. (d))  
(Sunnyvale Facility)**

45. The People re-allege paragraphs one through 31, above.

46. California Code of Regulations, title 22, section 66273.76, subdivision (d) requires that, no later than 30 days prior to beginning the handling and treatment of universal waste, a universal waste handler must submit to the Department documentation demonstrating financial assurance for the purpose of funding the cost estimate for closure for that facility.

47. Apple began handling, dismantling, shredding and disposing of discarded electronic devices, a universal waste, at the Sunnyvale Facility in January 2013, without first submitting documentation of financial assurance for closure of that facility to the Department.

1        48. Prior to the Department's inspection of the Sunnyvale Facility, on June 13, 2013, the  
2 Department had notified Apple of the lack of financial assurance documentation for the Facility.

3        49. As of the date of the Department's inspection of the Sunnyvale Facility on June 13,  
4 2013, Apple still had not submitted documentation of financial assurance for closure.

5        50. Section 66273.76, subdivision (d), requires a universal waste handler to "prepare and  
6 submit documentation demonstrating financial assurance for closure to fund the cost estimate for  
7 closure, pursuant to section 66265.143, subsections (a) through (h)." Section 66265.143 provides  
8 several options for demonstrating financial assurance.

9        51. Apple first submitted adequate documentation of financial assurance for closure of  
10 the Sunnyvale Facility, utilizing the mechanism provided by section 66265.143, subdivision (e),  
11 on November 18, 2013.

12        52. Section 66265.143, subsection (e)(4) provides that updated information shall be sent  
13 to the Department "within 90 days after the close of each succeeding fiscal year."

14        53. The fiscal year for the mechanism Apple chose to demonstrate financial assurance for  
15 closure ended on September 27, 2014.

16        54. Apple failed to timely update or re-submit to the Department an approved mechanism  
17 to demonstrate financial assurance for closure of the Sunnyvale Facility by December 27, 2014.  
18 Apple ultimately submitted a new mechanism for financial assurance for closure to the  
19 Department on March 16, 2015.

20        55. Apple is liable for a civil penalty under Health and Safety Code section 25189 or,  
21 alternatively, under section 25189.2, for continuing violations of California Code of Regulations,  
22 title 22, section 66273.76, subdivision (d) for: (1) treating electronic waste at the Sunnyvale  
23 Facility for more than 10 months without complying with the financial assurance for closure  
24 requirements of subdivision (d), and (2) continuing to operate the Sunnyvale Facility after  
25 December 27, 2014 without an updated mechanism for financial assurance for closure, for an  
26 additional 79 days in violation of this regulation.  
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**FIFTH CAUSE OF ACTION**

**(Failure to demonstrate financial responsibility for liability)  
(Cal. Code Regs., tit. 22, § 66273.76, subd. (c))  
(Tantau Avenue Facility)**

56. The People re-allege paragraphs one through 31, above.

57. California Code of Regulations, title 22, section 66273.76, subdivision (c) requires a universal waste handler to submit documentation to the Department demonstrating financial responsibility for liability thirty days prior to beginning operations.

58. Apple did not submit to the Department documentation of financial responsibility for liability for the Tantau Facility at all.

59. Apple is liable for a civil penalty under Health and Safety Code section 25189 or, alternatively, under section 25189.2, for treating electronic waste at the Tantau Avenue Facility for more than one year without submitting documentation of financial responsibility for liability to the Department, in violation of California Code of Regulations, title 22, section 66273.76, subdivision (c).

**SIXTH CAUSE OF ACTION**

**(Failure to demonstrate financial responsibility for liability)  
(Cal. Code Regs., tit. 22, § 66273.76, subd. (c))  
(Sunnyvale Facility)**

60. The People re-allege paragraphs one through 31, above.

61. California Code of Regulations, title 22, section 66273.76, subdivision (c) requires a universal waste handler to submit documentation to the Department demonstrating financial responsibility for liability, at least 30 days prior to beginning operations.

62. Apple began dismantling, shredding and disposing of electronic devices at the Sunnyvale Facility in January 2013, without first submitting to the Department the required documentation of financial responsibility for liability with respect to operations at the Facility.

63. Apple first submitted documentation of financial responsibility for liability for the Sunnyvale Facility on November 18, 2013.

64. To remain in compliance with the financial responsibility requirements for the mechanism that Apple chose (section 66265.147, subsection (f)(3)), the owner or operator is required to send complete updated information to the Department within 90 days after the close of each succeeding fiscal year.

65. The fiscal year for the mechanism Apple chose to demonstrate financial responsibility for liability ended on September 27, 2014. Apple was therefore required to submit updated documentation within 90 days of September 27, 2014.

66. Apple failed to timely update or re-submit a mechanism for financial responsibility for liability to the Department by December 27, 2014.

67. Apple submitted to the Department a new mechanism for financial responsibility for liability for the Sunnyvale Facility on March 16, 2015.

68. Apple is liable for a civil penalty under Health and Safety Code section 25189 or, alternatively, under section 25189.2, for successive violations of California Code of Regulations, title 22, section 66273.76, subdivision (c) for: (1) treating electronic waste at the Sunnyvale Facility for more than 10 months without complying with the financial responsibility for liability requirements of subdivision (c), and (2) continuing to operate the Facility after December 27, 2014, without updating its financial responsibility for liability, for an additional 79 days in violation of this regulation.

## SEVENTH CAUSE OF ACTION

### **(Failure to provide notice of closure) (Cal. Code Regs., tit. 22, § 66273.77, subd. (a)) (Tantau Avenue Facility)**

69. The People re-allege paragraphs one through 31, above.

70. California Code of Regulations, title 22, section 66273.77, subdivision (a), provides that a universal waste handler who intends to close a universal waste handling and/or treatment facility, or to cease such operations, must notify the Department thirty days prior to closure.

71. In or about January 2013, Apple closed the Tantau Avenue Facility for the handling and treatment of universal waste without notifying the Department of the closure, or of the last

1 day on which Apple intended to conduct treatment and/or handling of universal waste at this  
2 Facility.

3 72. Apple is liable for a civil penalty under Health and Safety Code section 25189 or,  
4 alternatively, under section 25189.2, for violation of California Code of Regulations, title 22,  
5 section 66273.77, subdivision (a), for failure to timely and properly notify the Department of the  
6 closure of, and cessation of waste handling and treatment at, the Tantau Avenue Facility.

### 7 **EIGHTH CAUSE OF ACTION**

8 **(Causing the treatment and storage of hazardous waste at unauthorized point)**  
9 **(Health & Saf. Code § 25189.2, subd. and (d))**  
10 **(Sunnyvale Facility)**

11 73. The People re-allege paragraphs one through 31 above.

12 74. Health and Safety Code section 25189.2, subdivision (d) makes it unlawful to treat or  
13 store or cause the treatment or storage of a hazardous waste at a point that is not authorized for  
14 such treatment or storage.

15 75. Apple caused the unlawful storage and treatment of hazardous waste by shipping the  
16 baghouse dust and floor sweep waste from the Sunnyvale Facility to SRS Roseville, as non-  
17 hazardous waste. SRS Roseville stored and treated this waste as non-hazardous before export to  
18 Canada. SRS Roseville is not authorized to store or treat the hazardous waste from Apple's  
19 Sunnyvale facility.

20 76. Apple is liable for a civil penalty under Health and Safety Code section 25189.2,  
21 subdivisions (c) , for causing the unauthorized treatment and storage of hazardous waste.

### 22 **NINTH CAUSE OF ACTION**

23 **(Transport of hazardous waste without manifest)**  
24 **(Health & Saf. Code §25160, Cal. Code Regs., tit. 22, §§ 66262.20, 66262.23, 66268.7)**  
25 **(Sunnyvale Facility)**

26 77. The People re-allege paragraphs one through 31, above.

27 78. Health and Safety Code section 25160, subdivision (b)(1) provides that a person  
28 generating hazardous waste that is transported, or submitted for transportation, for offsite  
handling, treatment, storage, disposal, or any combination thereof, shall complete a manifest  
according to the Department's manifest requirements (Cal. Code Regs., tit. 22, §§ 66262.20,

66262.23), prior to the time the waste is transported or offered for transportation.

79. A generator of hazardous waste is required to determine whether or not waste to be transported offsite is hazardous, and to comply with the requirements for shipping waste that is hazardous. (22 Cal. Code Regs. section 66268.7.)

80. From about January 2013 through June 13, 2013, Apple shipped an hazardous waste (baghouse dust) from the Sunnyvale Facility to SRS Roseville, without complying with the uniform manifest requirement for transportation of hazardous waste. Apple did not label or otherwise identify the shipments of hazardous waste (baghouse dust) to SRS Roseville as hazardous.

81. SRS Roseville is not an authorized point for the receipt and treatment of hazardous waste.

82. Because Apple failed to comply with the manifest requirements, SRS Roseville received, treated and disposed of hazardous waste without being informed by Apple of the waste's hazardous nature, and the Department was unable to track the quantity of the hazardous waste and the location of its disposal.

83. Apple is liable for a civil penalty under Health and Safety Code section 25189 or, alternatively, under section 25189.2, for violation of Health and Safety Code Section 25160 and California Code of Regulations, title 22, sections 66262.20, 66262.23, and 66268.7, for transporting hazardous waste from the Sunnyvale Facility without a manifest.

## TENTH CAUSE OF ACTION

### (Failure to notify, report and track export of hazardous waste) (Cal. Code Regs, tit. 22, §§ 66273.40, 66262.53, 66262.56, 66262.57) (Tantau Avenue Facility)

84. The People re-allege paragraphs one through 31, above.

85. Health and Safety Code section 25162.1 contains detailed requirements for exporting waste to foreign countries.

86. California Code of Regulations, title 22, section 66273.40, subdivision (a)(2) provides additional regulatory requirements for exporting universal waste to a foreign destination

1 in a country other than an Organization for Economic Cooperation and Development (OECD)  
 2 country specified in section 66262.58(a)(1).

3 87. On October 13, 2012, and again on November 3, 2012, Apple shipped universal  
 4 waste lithium batteries to Canada from the Tantau Avenue Facility without complying with the  
 5 applicable statutory and regulatory requirements for exporting a universal waste to a non-OECD  
 6 country. The Department's review of Apple's records and the Department's own database  
 7 indicates that for both of these shipments Apple failed to comply with the notification (section  
 8 66262.53), annual reporting (section 66262.56), and tracking (section 66262.57 ) requirements, as  
 9 well as the requirements of Health and Safety Code section 25162.1, subsections (a) and (b).

10 88. Apple is liable for civil penalties under Health and Safety Code section 25189 or,  
 11 alternatively, under section 25189.2, for failure to notify, report and track exports hazardous  
 12 waste to Canada from the Tantau Avenue Facility without complying with statutory and  
 13 regulatory requirements.

#### 14 **ELEVENTH CAUSE OF ACTION**

##### 15 **(Failure to label hazardous waste)** 16 **(Cal. Code Regs, tit. 22, § 66262.34(f))** 17 **(Sunnyvale Facility)**

18 89. The People re-allege paragraphs one through 31, above.

19 90. California Code of Regulations, title 22, section 66262.34, subdivision (f) provides  
 20 that generators who accumulate hazardous waste on site without a permit or grant of interim  
 21 status shall, among other things, label or clearly mark each container and tank used for onsite  
 22 accumulation of hazardous waste with the words, "Hazardous Waste."

23 91. On June 13, 2013, during the Department's inspection of the Sunnyvale Facility,  
 24 Department personnel observed three five-gallon used oil containers that were not labeled or  
 25 otherwise marked as "Hazardous Waste" as required pursuant to California Code of Regulations,  
 26 title 22, section 66262.34, subdivision (f).

27 92. Apple is liable for a civil penalty under Health and Safety Code section 25189 or,  
 28 alternatively, under section 25189.2, for violation of California Code of Regulations, title 22,

section 66262.34 subdivision (f), for failure to label used oil containers as “Hazardous Waste.”

## PRAYER FOR RELIEF

The People of the State of California, by and through the Department, request the following relief:

1. Judgment finding that Apple has violated the HWCL and its implementing regulations as described in the First through Eleventh Causes of Action;

2. Judgment against Apple for civil penalties in accordance with proof but in an amount of no less than \$450,000 (four hundred-fifty thousand dollars) for violations described in the First through Eleventh Causes of Action; and

3. For an injunction ordering Apple, its agents, servants, employees, representatives, and all persons acting within the control of Apple, to comply with Chapter 6.5 of Division 20 of the Health and Safety Code (Health & Saf. Code §25100 *et seq.*) and the regulations promulgated under this chapter (Cal. Code Reg., tit. 22, § 66000 *et seq.*) in connection with the handling, storage, treatment and transportation of hazardous waste.

4. Any additional relief that the Court deems appropriate.

Dated: December 2, 2016

Respectfully Submitted,

KAMALA D. HARRIS  
Attorney General of California  
MARGARITA PADILLA  
Supervising Deputy Attorney General

original signed by Reed Sato

\_\_\_\_\_  
REED SATO  
Deputy Attorney General  
*Attorneys for People of the State of  
California, ex. rel. Department of Toxic  
Substances Control*

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**MOTION FOR JUDICIAL NOTICE  
EXHIBIT**

**SECTION:**

California DTSC v Apple

2016

Order

1 KAMALA D. HARRIS  
2 Attorney General of California  
3 MARGARITA PADILLA  
4 Supervising Deputy Attorney General  
5 REED SATO  
6 Deputy Attorney General  
7 State Bar No. 87635  
8 1300 I Street, Suite 125  
9 P.O. Box 944255  
10 Sacramento, CA 94244-2550  
11 Telephone: (916) 445-5442  
12 Fax: (916) 322-5609  
13 E-mail: [Reed.Sato@doj.ca.gov](mailto:Reed.Sato@doj.ca.gov)

14 *Attorneys for People of the State of California, ex*  
15 *rel. Barbara A. Lee, Director of the Department of*  
16 *Toxic Substances Control*

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SUPERIOR COURT OF THE STATE OF CALIFORNIA  
COUNTY OF SANTA CLARA

PEOPLE OF THE STATE OF  
CALIFORNIA, *ex rel.* BARBARA A. LEE,  
DIRECTOR OF THE DEPARTMENT OF  
TOXIC SUBSTANCES CONTROL,

Plaintiff,

v.

APPLE INC., a California corporation,

Defendant.

(ENDORSED)  
**FILED**  
DEC 1 2 2016

DAVID H. YAMASAKI  
Chief Executive Officer/Clerk  
Superior Court of CA County of Santa Clara  
BY \_\_\_\_\_ DEPUTY

*M. Dominguez*

16CV303579

Case No.

[PROPOSED] FINAL JUDGMENT  
PURSUANT TO STIPULATION

Good cause appearing herein, the Court finds that the Stipulation for Settlement and Entry of Judgment and Permanent Injunction ("Stipulation") between the Plaintiff, the People of the State of California, *ex rel.* Barbara A. Lee, Director of the Department of Toxic Substances Control, and Defendant Apple Inc., which is attached as Exhibit A, is fair and in the public

1 interest. The Stipulation is approved, and its terms are incorporated into this judgment by  
2 reference. Accordingly, final judgment is entered.

3 IT IS SO ORDERED:  
4

5 DEC 08 2016  
6 Date: \_\_\_\_\_

**James L. Stoelker**  
\_\_\_\_\_  
7 Judge of the Santa Clara County Superior Court  
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## Exhibit A

[Proposed] Final Judgment Pursuant to  
Stipulation

*People v. Apple Inc.*

1 KAMALA D. HARRIS  
2 Attorney General of California  
3 MARGARITA PADILLA  
4 Supervising Deputy Attorney General  
5 REED SATO  
6 Deputy Attorney General  
7 State Bar No. 87635  
8 1300 I Street, Suite 125  
9 P.O. Box 944255  
10 Sacramento, CA 94244-2550  
11 Telephone: (916) 445-5442  
12 Fax: (916) 322-5609  
13 E-mail: [Reed.Sato@doj.ca.gov](mailto:Reed.Sato@doj.ca.gov)

14 *Attorneys for People of the State of California, ex*  
15 *rel. Barbara A. Lee, Director of the Department of*  
16 *Toxic Substances Control*

17 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
18 COUNTY OF SANTA CLARA

19 **PEOPLE OF THE STATE OF**  
20 **CALIFORNIA, ex rel. BARBARA A. LEE,**  
21 **DIRECTOR OF THE DEPARTMENT OF**  
22 **TOXIC SUBSTANCES CONTROL,**

23 Plaintiff,

24 v.

25 **APPLE INC., a California corporation,**

26 Defendant.

Case No.

**STIPULATION FOR SETTLEMENT  
AND ENTRY OF JUDGMENT AND  
PERMANENT INJUNCTION**

27 Plaintiff, the People of the State of California, *ex rel.* Barbara A. Lee, Director of the  
28 Department of Toxic Substances Control, ("Department") and Defendant Apple Inc. ("Apple")  
enter into this Stipulation for Settlement and Entry of Judgment ("Stipulation"), and agree as  
follows:

1           **1. COMPLAINT**

2           Concurrently with this Stipulation, the Department filed a Complaint for Civil Penalties  
3 and Injunctive Relief (“Complaint”) against Apple for violations of the California Hazardous  
4 Waste Control Law, Health and Safety Code sections 25100 *et seq.* (“HWCL”), and  
5 implementing regulations, Cal. Code Regs, tit. 22, Division 4.5, sections 66000 *et seq.* (“Title  
6 22”), in connection with processing electronic waste for disposal and recycling at facilities owned  
7 and operated by Apple in Santa Clara County.

8           **2. JURISDICTION AND VENUE**

9           The Department and Apple (together, the “Parties” and individually, “Party”) agree that  
10 for purposes of this Stipulation, the Court has both subject matter over the allegations in the  
11 Complaint and personal jurisdiction over the parties to the Complaint. The Parties also agree that  
12 venue is proper in this Court under Health and Safety Code section 25183.

13           **3. STIPULATION AND SETTLEMENT FOR ENTRY OF FINAL JUDGMENT**

14           The Department and Apple enter into the Stipulation pursuant to a compromise and  
15 settlement of disputed claims. Each of the Parties consents to the entry by the Superior Court of  
16 Santa Clara County (the “Court”) of a Final Judgment Pursuant to Stipulation which incorporates  
17 the terms of the Stipulation by reference. The Stipulation was negotiated and executed in good  
18 faith and at arms’ length by each of the Parties, with their respective counsel, to avoid expensive  
19 and protracted litigation regarding violations of the HWCL and Title 22 alleged by the  
20 Department in the Complaint. The Department enters into this Stipulation to further the public  
21 interest. Nothing herein shall inure to the benefit of any persons not Parties to this Stipulation.

22           **4. WAIVER OF HEARING AND TRIAL**

23           By signing and entering into this Stipulation, Apple waives its right to a hearing and trial  
24 on matters alleged in the Complaint and to appeal. Further, the Parties each request entry of the  
25 Final Judgment on the terms set forth in this Stipulation.  
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1                   **5. APPLICABILITY**

2           Unless otherwise expressly provided herein, the terms of this Stipulation and the Final  
3 Judgment shall apply to and be binding on (a) Apple its successors, and its officers, directors, and  
4 employees, and all persons acting within the control of Apple including, but not limited to Sims  
5 Recycling Solutions, Inc., at any facility in California owned or operated by Apple at which  
6 electronic waste or any other hazardous waste is treated, or recycled ("Apple Facility") and (b)  
7 the Department and any successor agency of the Department that may have responsibility for, and  
8 jurisdiction over, the subject matter of the Complaint and Final Judgment.

9                   **6. MATTERS COVERED**

10           This Stipulation is a final and binding resolution and settlement of all violations that the  
11 Department alleged in its inspection reports stemming from the inspections of Apple Facilities  
12 conducted on June 13, 2013 and subsequent information requests, and the violations and causes  
13 of action that were specifically alleged in the Complaint against Apple. ("Matters Covered").

14                   **7. INJUNCTION**

15           Apple shall be enjoined and ordered as follows:

16           a.     Apple shall ensure that its officers, directors, and employees, representatives, and all  
17 persons acting within the control of Apple at any Apple Facility comply with all of the laws and  
18 regulations specifically identified in the violations alleged in Paragraph 31 of the Complaint.

19           b.     Any officer or employee of Apple assuming responsibility for, or oversight of,  
20 hazardous waste management at Apple, including Apple's Facility manager, primary and  
21 secondary emergency coordinators, and the technicians responsible for baghouse maintenance  
22 and operations, must attend and successfully complete Modules I-V relating to hazardous waste at  
23 California Compliance School within six months of their hire, promotion, or assumption of  
24 responsibility unless they have attended the California Compliance School and passed the  
25 relevant modules within the last five years before the date of their hiring, promotion, or  
26 assumption of responsibility.

c. Apple shall ensure that e-waste labeled as Universal Waste, including shredded e-waste, is not mixed or otherwise placed in containers with dust derived from its shredding operations.

d. Apple shall conduct weekly inspections of all areas of its facilities where hazardous waste is generated or accumulated, including an inspection of all municipal waste containers and e-waste containers to inspect for improper management of hazardous waste. Apple shall maintain a written log on-site of the inspections required by Cal. Code of Regs, tit. 22, section 66265.15. The log shall be furnished upon request, and shall be made available at all reasonable times for inspection, to any officer, employee or representative of DTSC or the local Certified Unified Program Agency ("CUPA").

e. Apple must submit to the Department documentation demonstrating financial assurance for the Closure/Post Closure Plan in accordance with title 22, section 66265.143. The document submittals shall be submitted annually to DTSC by no later March 16 of each year.

f. Within 30 days of the Effective Date of the Judgment, the Senior Director of Real Estate and Development shall be responsible for ensuring that all required financial assurance documentation is submitted to the Department.

#### **8. PENALTY**

Apple shall pay the Department a civil penalty of \$450,000 (four hundred-fifty thousand dollars) on or before fifteen days after the Effective Date (as defined in Paragraph 21, below) of the Judgment.

Apple shall pay the penalty by cashier's check made payable to "California Department of Toxic Substances Control" and bearing the notation "Apple Inc.," and shall send it to:

Cashier  
Accounting Office, MS-21 A  
Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, CA 95812-0806

An electronic copy or paper photocopy of the cashier's check for payment of the penalty shall be sent, at the same time, to Department and Office of Attorney General personnel specified in Section 10 ("Notices"), below.

1           **9. ENFORCEMENT**

2           If the Department determines that Apple has violated the terms of this Stipulation or the  
3 Final Judgment, the Department will provide Apple with written notice of the default to its  
4 representatives identified in Section 11 (“Notices”) below. If Apple fails to come into  
5 compliance within 30 calendar days of receiving the Department’s notice, or another time frame  
6 specified by the Department (whichever is later), the Department may pursue all its rights and  
7 remedies to enforce the Final Judgment. Nothing in this section shall limit the Department’s right  
8 to enforce the HWCL or Title 22 concerning violations not alleged in Paragraph 31 of the  
9 Complaint. The Department reserves its right to assert a claim, separate and independent of, and  
10 in addition to, any claim made to enforce this Final Judgment, for violations of the underlying  
11 statutory or regulatory requirements. In the event that the Department files any motion pursuant to  
12 this paragraph or brings an independent enforcement action, Defendants reserve and retain all  
13 rights and defenses to oppose the Department’s motion or independent enforcement action.

14           At any time after the Final Judgment has been in effect for four (4) years, and Apple has  
15 paid all amounts due hereunder, Apple may, with notice to the Department, file a motion  
16 requesting that the Court order that the Permanent Injunction provisions of Paragraph 7 shall have  
17 no prospective force or effect based on Apple’s demonstrated history of compliance with the  
18 Final Judgment. Within thirty (30) days of the filing of Apple’s motion, the Department may file  
19 a response in opposition. If the Department agrees that Apple has complied with the obligations  
20 set forth in the Final Judgment, the Department may file a statement of non-opposition to  
21 Apple’s motion or file no response. Within fifteen (15) days of any filing by the Department,  
22 Apple may file a response to the opposition, and the matter shall be set for hearing as soon as  
23 reasonably possible thereafter. The Parties agree that the Court may grant Apple’s request upon  
24 determining that Apple has complied with the obligations set forth herein.

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1           **10. NOTICES**

2           All notices under this Stipulation and the Judgment shall be in writing and shall be sent to:

3           For the Attorney General:

4           **Reed Sato**

5           Deputy Attorney General  
6           1300 I Street, Suite 125  
7           P.O. Box 944255  
8           Sacramento, CA 94244-2550  
9           Reed.sato@doj.ca.gov

10          For the Department:

11          **Alex Baillie**

12          Department of Toxic Substances Control  
13          8800 Cal Center Drive  
14          Sacramento, CA 95826  
15          Alex.Baillie@dtsc.ca.gov

16          **Christopher Cho**

17          Office of Legal Counsel, MS-23A  
18          Department of Toxic Substances Control  
19          P.O. Box 806  
20          Sacramento, CA 95812-0806  
21          Christopher.Cho@dtsc.ca.gov

22          For Apple:

23          **James C. Fowler**

24          Associate General Counsel, Real Estate  
25          Apple Inc.  
26          1 Infinite Loop, M/S 4-DLAW  
27          Cupertino, California 95014  
28          jfowler@apple.com

**Kristina E. Raspe**

            Senior Director, Real Estate  
            Apple Inc.  
            1 Infinite Loop, M/S 119-REF  
            Cupertino, California 95014  
            kraspe@apple.com

            With a copy to:

**William F. Tarantino**

            Morrison & Foerster LLP  
            425 Market Street, Suite 3300  
            San Francisco, California 94105  
            WTarantino@mof.com

1 Each Party may change its respective representative(s) for purposes of notice by providing  
2 the name and address of the new representative, in writing, to both Parties. Any such change will  
3 take effect within seven calendar days of the date of the written notice.

#### 4 **11. AUTHORITY TO ENTER STIPULATION**

5 Each signatory to this Stipulation certifies that he or she is fully authorized by the Party he  
6 or she represents to enter into this Stipulation, to execute it on behalf of the Party represented, and  
7 to legally bind that Party.

#### 8 **12. EFFECT OF STIPULATION AND JUDGMENT**

9 Except as expressly provided in this Stipulation, nothing in this Stipulation or the  
10 Judgment is intended nor shall it be construed to preclude the Department, or any state, county, or  
11 local agency, department, board or entity from exercising its authority under any law, statute, or  
12 regulation.

#### 13 **13. NO WAIVER OF RIGHT TO ENFORCE**

14 Should the Department decline to enforce any provision of the Stipulation or the  
15 Judgment, that shall neither be deemed a waiver of such provision, nor in any way affect the  
16 validity of the Stipulation or Judgment or the Department's enforcement authority, nor shall it  
17 preclude the Department from later enforcing the same or other provisions. No oral advice,  
18 guidance, suggestions, or comments by employees or officials of the Department, or  
19 conversations between employees or officials of the Department and employees or representatives  
20 of Apple, or people or entities acting on behalf of Apple, shall be construed to relieve Apple of its  
21 obligations under this Stipulation or the Judgment.

#### 22 **14. NO LIABILITY OF THE DEPARTMENT**

23 The Department shall not be liable for any injury or damage to persons or property  
24 resulting from acts or omissions by Apple or its agents, servants, employees, representatives, or  
25 other persons acting in concert or participating with Apple, in carrying out Apple's obligations  
26 pursuant to this Stipulation or the Judgment.

1                   **15. FUTURE REGULATORY CHANGES**

2           Nothing in this Stipulation or the Judgment shall excuse Apple from meeting more  
3 stringent requirements that may be imposed by changes in the applicable law. It is the  
4 responsibility of Apple to remain informed as to any and all applicable statutory and/or regulatory  
5 changes, and to remain in compliance with all applicable statutory and regulatory provisions.

6                   **16. INTEGRATION**

7           This Stipulation and the Judgment constitute the entire agreement between the Parties, and  
8 may not be amended or supplemented except as provided for in this Stipulation or in the  
9 Judgment. No oral representations have been made or relied on other than as expressly set forth  
10 herein.

11                   **17. RETENTION OF JURISDICTION**

12           The Parties agree that the Court has continuing jurisdiction to interpret and enforce the  
13 provisions of this Stipulation and the Judgment.

14                   **18. EQUAL AUTHORSHIP**

15           This Stipulation shall be deemed to have been drafted equally by the Parties hereto. The  
16 Parties agree that the rule of construction holding that ambiguity is construed against the drafting  
17 party shall not apply to the interpretation of this Stipulation.

18                   **19. AMENDMENTS TO THIS STIPULATION AND THE JUDGMENT**

19           This Stipulation and the Judgment may be amended only pursuant to a written agreement  
20 signed by all the Parties, followed by written approval by the Court, or by order of the Court  
21 following the filing of a duly noticed motion.

22                   **20. COUNTERPARTS**

23           This Stipulation may be executed in several counterpart originals, all of which taken  
24 together shall constitute an integrated original document.

## 21. ENTRY OF JUDGMENT AND EFFECTIVE DATE OF JUDGMENT

The Parties further stipulate that upon approval of this Stipulation by the Court, the Court may enter the Final Judgment in this matter. The "Effective Date" of the Judgment is the date the Judgment is entered by the Court. If the Court does not approve this Stipulation and the Final Judgment in the form and substance proposed in Exhibit A hereto, each Party reserves the right to withdraw both the Stipulation and the Judgment upon written notice to all Parties and the Court.

IT IS SO STIPULATED.

Dated: 11/29, 2016

FOR THE DEPARTMENT OF TOXIC  
SUBSTANCES CONTROL

original signed by Keith Kihara

KEITH KIHARA  
Division Chief  
Enforcement and Emergency Response  
Division  
Department of Toxic Substances Control

Dated: \_\_\_\_\_, 2016

FOR APPLE, INC.

JAMES C. FOWLER  
Associate General Counsel  
Apple Inc.

1                   **21. ENTRY OF JUDGMENT AND EFFECTIVE DATE OF JUDGMENT**

2                   The Parties further stipulate that upon approval of this Stipulation by the Court, the Court  
3 may enter the Final Judgment in this matter. The "Effective Date" of the Judgment is the date  
4 the Judgment is entered by the Court. If the Court does not approve this Stipulation and the Final  
5 Judgment in the form and substance proposed in Exhibit A hereto, each Party reserves the right to  
6 withdraw both the Stipulation and the Judgment upon written notice to all Parties and the Court.

7                   **IT IS SO STIPULATED.**

8                   Dated: \_\_\_\_\_, 2016

FOR THE DEPARTMENT OF TOXIC  
SUBSTANCES CONTROL

12                   \_\_\_\_\_  
13 KEITH KIHARA  
14 Division Chief  
15 Enforcement and Emergency Response  
16 Division  
17 Department of Toxic Substances Control

16                   Dated: 11 / 17, 2016

FOR APPLE INC.

19                   original signed by James Fowler

20                   \_\_\_\_\_  
21 JAMES C. FOWLER  
22 Associate General Counsel  
23 Apple Inc.  
24  
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1                   **APPROVED AS TO FORM:**

2                   Dated: December 1, 2016

KAMALA D. HARRIS  
Attorney General of California  
SALLY MAGNANI  
Senior Assistant Attorney General

6                   original signed by Reed Sato

7                   \_\_\_\_\_  
REED SATO  
Deputy Attorney General  
Attorneys for Plaintiff People of the State of  
California, ex rel. Department of Toxic  
Substances Control

10                  Dated: NOVEMBER 17, 2016

13                  original signed by Scott Murray

14                  \_\_\_\_\_  
SCOTT B. MURRAY  
Senior Litigation Counsel  
APPLE INC.  
For Defendant Apple Inc.

## Exhibit A

To Stipulation for Settlement and Entry  
of Judgment and Permanent Injunction

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*Attorneys for People of the State of California, ex  
rel. Barbara A. Lee, Director of the Department of  
Toxic Substances Control*

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
COUNTY OF SANTA CLARA

PEOPLE OF THE STATE OF  
CALIFORNIA, *ex rel.* BARBARA A. LEE,  
DIRECTOR OF THE DEPARTMENT OF  
TOXIC SUBSTANCES CONTROL,

Plaintiff,

v.

APPLE INC., a California corporation,

Defendant.

Case No.

FINAL JUDGMENT PURSUANT TO  
STIPULATION

Good cause appearing herein, the Court finds that the Stipulation for Settlement and Entry of Judgment and Permanent Injunction ("Stipulation") between the Plaintiff, the People of the State of California, *ex rel.* Barbara A. Lee, Director of the Department of Toxic Substances Control, and Defendant Apple Inc., which is attached as Exhibit A, is fair and in the public

1 interest. The Stipulation is approved, and its terms are incorporated into this judgment by  
2 reference. Accordingly, final judgment is entered.

3 IT IS SO ORDERED:  
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5  
6 Date: \_\_\_\_\_

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Judge of the Santa Clara County Superior Court

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**MOTION FOR JUDICIAL NOTICE  
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**SECTION:**

California DTSC v Apple

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# California EPA says settled with Apple on hazardous waste claims

By  
Stephen  
Nellis

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## ADVERTISEMENT

An Apple logo hangs above the entrance to the Apple store on 5th Avenue in the Manhattan borough of New York City, U.S., December 5, 2016. REUTERS/Brendan McDermid

(Reuters) - The California Environmental Protection Agency on Tuesday said Apple Inc agreed to pay \$450,000 to settle state claims that it had mishandled hazardous electronic waste at facilities in Silicon Valley.

Apple also agreed to increase inspections to settle allegations about facilities in Cupertino and Sunnyvale, the Agency's Department of Toxic Substances Control said.

"This matter involves an oversight in filing paperwork to close one of our recycling facilities as part of our expansion to a larger site," Apple spokeswoman Alisha

Johnson told Reuters in an emailed statement.

“We’ve worked closely with [the Department of Toxic Substance Control] to ensure that going forward we have the proper permits for our current site. As we do with all our facilities, we followed our stringent set of health and safety standards, which go well beyond legal requirements.”

State regulators alleged Apple opened and operated an electronic waste shredding facility in Cupertino, its home base, between 2011 and 2012 without informing them.

The department also alleged Apple mishandled metal dust from shredder operations at the Cupertino facility, which

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processed about 1.1 million pounds (500,000 kg) of waste before it was closed in January 2013.

Regulators also said that Apple subsequently opened another shredding facility in nearby Sunnyvale and processed 800,000 pounds of waste before notifying the regulators of the plant's existence. At the Sunnyvale plant, regulators alleged, Apple took hazardous dust swept from the floor and sent it to a disposal site that was not authorized to handle toxic waste.

The regulators also claim Apple did not properly report and track exports of hazardous waste and failed to mark used oil containers properly as hazardous waste.

Reporting by Stephen Nellis; Editing  
by Dan Grebler and Alan Crosby

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**MOTION FOR JUDICIAL NOTICE  
EXHIBIT**

**SECTION:**

North Carolina  
Dept. of Env. Quality  
Haz. Waste Section  
v Apple

Maiden Data Center

2017

Order & Fine

LASERFICHE FILE TRANSMITTAL FORM  
DIVISION OF WASTE MANAGEMENT  
HAZARDOUS WASTE SECTION

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Your Name: Heather Goldman

Document Category: Facility

Document Group: Inspection/Investigation (I)

Document Type: Compliance Evaluation Inspection (CEI)

EPA ID: NCR000149526

Facility Name/Subject: Apple, Inc.

Document Date: 02/09/2017

Description: CESQG inspection. Compliance Order Docket #2017-047 issued in conjunction with this report.

Author: Heather Goldman

Branch/Unit: Compliance Branch-Western Region

Facility/Site Address: 5977 Startown Road

Facility/Site City: Maiden

Facility/Site State: North Carolina

Facility/Site Zipcode: 28650

Facility/Site County: Catawba

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**RCRAINFO DATA ENTRY FORM  
HAZARDOUS WASTE SECTION - COMPLIANCE BRANCH**

**For Violations:**

**Enforcement Date:** 10/2/2017

**Docket Number:** 2017-047

**Enforcement Type:** CO

**How many violations were there?** 8

**For IANOV or CO:** The facility is a SNC (SNY Evaluation)

**Violation #1:**

**Date Determined:** 2/9/2017

**Scheduled Return to Compliance:** [Click here to enter a date.](#)

**Actual Return to Compliance:** [Click here to enter a date.](#)

**Regulation Description:** 40 CFR 262.11

**Comment:** The facility failed to conduct a proper waste determination .

**For CSE, Corrections to Violations were:**

**Violation #2:**

**Date Determined:** 2/9/2017

**Scheduled Return to Compliance:** [Click here to enter a date.](#)

**Actual Return to Compliance:** [Click here to enter a date.](#)

**Regulation Description:** 40 CFR 262.41(a)

**Comment:** The facility failed to prepare and submit a single copy of a Biennial Report to the NCDEQ Hazardous Waste Section by March 1 of 2016 covering generator activities during the previous year.

**For CSE, Corrections to Violations were:**

**Violation #3:**

**Date Determined:** 2/9/2017

**Scheduled Return to Compliance:** [Click here to enter a date.](#)

**Actual Return to Compliance:** [Click here to enter a date.](#)

**Regulation Description:** 40 CFR 262.20(a)(1)

**Comment:** The facility offered for transport a hazardous waste for offsite treatment, storage, or disposal and failed to prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22.

**For CSE, Corrections to Violations were:**

**Violation #4:**

**Date Determined:** 2/9/2017

**Scheduled Return to Compliance:** [Click here to enter a date.](#)

**Actual Return to Compliance:** [Click here to enter a date.](#)

**Regulation Description:** 40 CFR 262.12(c)

**Comment:** The facility failed to offer D018 hazardous waste to a transporter and/or treatment, storage, or disposal facility that had received an EPA identification number.

**For CSE, Corrections to Violations were:**

**Violation #5:**

**Date Determined:** 2/9/2017

**Scheduled Return to Compliance:** [Click here to enter a date.](#)

**Actual Return to Compliance:** [Click here to enter a date.](#)

**Regulation Description:** 40 CFR 268.7(a)(8)

**Comment:** The facility failed to submit a one-time written notice to each treatment or storage facility receiving the waste and place a copy in the file.

**For CSE, Corrections to Violations were:**

**Violation #6:**

**Date Determined:** 2/9/2017

**Scheduled Return to Compliance:** [Click here to enter a date.](#)

**Actual Return to Compliance:** [Click here to enter a date.](#)

**Regulation Description:** N.C.G.S. 130A-294.1(e)

**Comment:** The facility failed to pay an annual fee of one thousand four hundred dollars (\$1,400) for Fiscal Year 2013-2014 and Fiscal Year 2014-2015.

**For CSE, Corrections to Violations were:**

**Violation #7:**

**Date Determined:** 2/9/2017

**Scheduled Return to Compliance:** [Click here to enter a date.](#)

**Actual Return to Compliance:** [Click here to enter a date.](#)

**Regulation Description:** N.C.G.S. 130A-294.1(e)

**Comment:** The facility failed to pay an annual fee of one seventy-five dollars (\$175) for Fiscal Year 2015-2016.

**For CSE, Corrections to Violations were:**

**Violation #7:**

**Date Determined:** 2/9/2017

**Scheduled Return to Compliance:** [Click here to enter a date.](#)

**Actual Return to Compliance:** [Click here to enter a date.](#)

**Regulation Description:** N.C.G.S. 130A-294.1(g)

**Comment:** The facility failed to pay a tonnage fee of seventy cents (\$0.70) per ton or any part thereof of hazardous waste generated during that year up to a maximum of 25,000 tons.

**For CSE, Corrections to Violations were:**



ROY COOPER  
*Governor*

MICHAEL S. REGAN  
*Secretary*

MICHAEL SCOTT  
*Director*

October 5, 2017

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Thomas Jacobik – Operations Manager  
Apple, Inc.  
5977 Startown Road  
Maiden, NC 28650

SUBJECT: RCRA Compliance Inspection  
Apple, Inc.  
Large Quantity Generator  
EPA I.D. # NCR000149526  
Catawba County

Dear Mr. Thomas Jacobik:

On February 9, 2017, Brent Burch, Sean Morris, and myself, all with the Hazardous Waste Section, inspected the subject facility for compliance with the North Carolina Hazardous Waste Management Rules. Your cooperation during the inspection was appreciated.

Enclosed is a copy of the inspection report. The facility was found to be in violation of several regulations. **Please respond in writing by November 6, 2017** stating how Apple, Inc. has resolved these deficiencies. Written responses should be sent to: Attn: Heather Goldman, NCDEQ, PO BOX 38085, Charlotte, NC 28278 or [heather.goldman@ncdenr.gov](mailto:heather.goldman@ncdenr.gov).

Due to the nature and number of violations noted in this inspection, and the violations noted in previous inspections, the Compliance Branch has initiated an enforcement action against Apple, Inc. for violations of the Hazardous Waste Regulations.

Please call me at 980-224-9858 if you have any questions concerning this report or if you need any assistance in complying with the Hazardous Waste Regulations.

Sincerely,

Heather Goldman  
Environmental Senior Specialist

**STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF WASTE MANAGEMENT  
HAZARDOUS WASTE SECTION**

**LARGE QUANTITY GENERATOR (LQG)  
COMPLIANCE EVALUATION INSPECTION (CEI) REPORT**

**1. FACILITY INFORMATION:**

Name: Apple, Inc.  
EPA ID Number: NCR000149526  
Type of Facility: Large Quantity Generator (LQG)  
Facility Location and Address: 5977 Startown Road, Maiden, NC 28650  
Telephone Number: 828-315-0668  
County: Catawba

**2. AUTHOR OF REPORT:** Heather Goldman, Environmental Senior Specialist, NCDEQ  
980-224-9858 [heather.goldman@ncdenr.gov](mailto:heather.goldman@ncdenr.gov)  
PO Box 38085, Charlotte, NC 28278  
Date of Report: October 5, 2017

**3. FACILITY CONTACT:** Thomas Jacobik – Operations Manager  
Office: 828-315-0668; [jacobik@apple.com](mailto:jacobik@apple.com)

**4. SURVEY PARTICIPANTS:** Mike Francesca – Chief Engineer; Jason Laurendine – Facilities Technician

**5. SURVEY INSPECTORS:** Brent Burch – Compliance Branch Head NCDEQ; Sean Morris – Western Unit Compliance Supervisor NCDEQ; Heather Goldman - ESS NCDEQ

**6. DATE OF INSPECTION:** February 9, 2017; 10:00 a.m. – 1:00 p.m.

**7. PURPOSE OF EVALUATION:** A Compliance Evaluation Inspection (CEI) to determine compliance with hazardous waste management regulations (also known as the Resource Conservation & Recovery Act, or RCRA) which are described at Chapter 40 of the Code of Federal Regulations (40 CFR), Parts 260 – 270, 273, and 279; and Title 15 Chapter 13A Hazardous Waste Management Rules (Rules) of the North Carolina Administrative Code (NCAC).

**8. DESCRIPTION OF FACILITY:** Apple, Inc. (facility) operates primarily as a data center. The facility includes server rooms, offices, maintenance, and various energy generation areas. Hard drives are shredded onsite and sent off site for reclamation. Lead acid batteries are maintained onsite. A total of 504,574 square feet is located under roof.

A request for an EPA ID number and notification as a Small Quantity Generator (SQG) was first received on July 29, 2010 for Project Dolphin Data Center. A subsequent notification as a Conditionally Exempt Small Quantity Generator (CESQG) and ownership name change was received on October 4, 2010 for Apple Waste codes on the notification form included D001, D002, D008, F001, F002, F003,

and F005. The following information was provided regarding the waste code generation: D001 – fuels; D002 – water treatment chemicals; D008 – lead acid batteries; F001 – bleach/solvents from maintenance activities; F002 – none provided; F003 – ethylene torches from construction, no longer generated; and F005 – toluene and MEK from construction, no longer generated.

The facility was notified as a CESQG and appeared to be operating as a CESQG at the time of inspection. Bloom Energy Corporation, based out of 1299 Orleans Drive, Sunnyvale, CA, 94089, provides monitoring and maintenance of the Bloom Fuel Cells and manages the removal, handling, and transport of the spent catalyst material generated onsite from the Cells. Based on information provided by the facility, it appears the facility was operating as a Large Quantity Generator (LQG) during the months of March 2014, April 2014, June 2014, July 2014, October 2014, November 2014, December 2014, May 2015, and June 2015, and a Small Quantity Generator (SQG) during the month of June 2016.

**General Information:**

- a) Legal owner of facility: Apple, Inc.
- b) Legal owner of property: Apple, Inc.
- c) Number of Employees/Shifts: Confidential/ Operates 24/7
- d) Water supply (municipal or well): City of Hickory
- e) Municipal sewer/septic/on-site treatment facility: Town of Maiden
- f) Number of on-site wells: Four wells for backup water
- g) Distance to closest off-site well: Unknown
- h) Closest private residence: Approximately 0.27 miles from main building
- i) Site Acreage: The main buildings and fuel cells are located on approximately 127.30-acre parcel (5977 Startown Road, Maiden, NC 28650); the solar cells are located on approximately 140.13-acre parcel (6028 Startown Road, Maiden, NC 28650); and the fuel cells are accessed through 2201 Elbow Road, Maiden, NC 28658.

**9. AREAS OF REVIEW AND INSPECTION:**

- a) Manifests / Land Disposal Restriction (LDR) Notifications – At the time of inspection, no hazardous waste manifest or LDRs were provided, for the last three years, for review. However, the facility did offer for transport D018 hazardous waste that was generated from Bloom Energy fuel cell canisters, which contained spent catalyst. A description of the fuel cells and how the waste is generated is described in the Fuel Cells section of this report. Below is a summary of the D018 hazardous waste material that was offered for transport between February 9, 2014 and February 9, 2017. This information is summarized in Table 1 and is based on e-mails, written responses, transportation documents, and hazardous waste manifests that were provided by Apple Inc. after the initial inspection.

**Violation Noted: Apple, Inc. offered D018 hazardous waste to a transporter that had not received an EPA Identification Number.**

Based on transportation documents and information provided by facility personnel, Apple generated 43,780 pounds of D018 hazardous waste spent catalyst between March 12, 2014 and December 5, 2014 and generated approximately 14,641 pounds of D018 hazardous waste spent catalyst between May 2015 and June 2016 (See Table 1). Apple offered the hazardous waste to a company named Expeditors International transport over a total of fourteen (14) shipments. Each of the fourteen shipments were made using a “Contract of Carriage” shipping document and the

documents indicated that eleven (11) of the shipments were transported from Apple, Inc. in Maiden, NC to a facility named Unicat Services, located in Alvin, TX, and three (3) of the shipments were transported to a company named VLS Recovery Services, LLC, located in Pasadena, TX. On April 24, 2017, Mr. Steiger provided the addresses, as included below, of the Expeditors International branches, located in the State of California and the State of Pennsylvania, that the shipments were coordinated with. An internal search found that three Expeditors International facilities in the State of Washington and two Expeditors International facilities in the State of Texas that have been assigned EPA ID numbers. However, none of these locations have notified as a transporter of hazardous waste.

Expeditors International, located at 425 Valley Drive, Brisbane, CA 94005, had not notified as a hazardous waste transporter or been issued an EPA ID number.

Expeditors International, located at 519 Kaiser Drive, Suite A, Folcroft, PA 19032, had not notified as a hazardous waste transporter or been issued an EPA ID number.

Apple, Inc. offered D018 hazardous waste to two facilities with an EPA Identification Number but neither facility had notified as a Treater, Storer, or Disposer of Hazardous Waste.

Based on transportation documents, and information provided by facility personnel, Apple, Inc. generated 43,780 pounds of D018 hazardous waste spent catalyst between March 12, 2014 and December 5, 2014 (See Table 1). The waste was transported over (11) shipments from Apple, Inc. in Maiden, NC to Unicat Services, located in Alvin, TX. Unicat Services accepted the spent catalyst canisters and repackaged the spent material before manifesting and shipping the hazardous waste to either Veolia ES Technical Solutions – TXD000838896; Clean Harbors San Leon, Inc. – TXD981053770; or Rinco – ARD981057870, which are all notified as RCRA permitted treatment, storage & disposal facilities. The hazardous waste manifests, prepared by Unicat Services, listed the generator of the spent catalyst waste as either Bloom Energy @ Unicat Services – TXR000081631 or Bloom Energy – TXR000081631. Unicat Services – TXR000081631 was notified as a Large Quantity Generator at the time of the 2014 shipments. Unicat Services was not notified as a RCRA permitted Treatment, Storage & Disposal Facility.

Based on transportation documents, and information provided by facility personnel, Apple, Inc. generated 14,641 pounds of D018 hazardous waste spent catalyst between May 2015 and June 2016 (See Table 1). This waste was transported over three (3) shipments from Apple, Inc. in Maiden, NC to VLS Recovery Services, LLC (VLS Bayport), located in Pasadena, TX (See Table 1.) The spent material was treated at VLS Bayport by separating out copper, with the remaining hazardous waste materials manifested and shipped to Clean Harbors San Leon, Inc. – TXD981053770, which is notified as a RCRA permitted treatment, storage & disposal facility. The hazardous waste manifests, prepared by VLS Bayport, listed the generator of the spent catalyst waste as VLS Bayport. VLS Bayport – TXR000082015 was notified as a transfer facility and a Large Quantity Generator at the time May & June 2015 shipments. VLS Bayport was notified as a Large Quantity Generator at the time of the June 2016 shipment. VLS Bayport was not notified as a RCRA permitted Treatment, Storage & Disposal Facility.

*Table 1: Shipments of Spent Catalyst from Apple, Inc., Maiden, NC*

Month	Number of Canisters replaced	Catalyst Weight (approximate) <sup>1</sup>	Catalyst Weight <sup>2</sup>	Date of Shipment from Apple, Inc.	Receiving Facility
Mar 2014	50	2500 kg	5500 pounds	3/12/2014; 3/17/2014	Unicat Services, Alvin, TX
Apr 2014	48	2400 kg	5280 pounds	4/4/2014	Unicat Services, Alvin, TX
Jun 2014	30	1500 kg	3300 pounds	6/27/2014	Unicat Services, Alvin, TX
Jul 2014	108	5400 kg	11880 pounds	7/7/2014; 7/22/2014	Unicat Services, Alvin, TX
Aug 2014	12	600 kg	1320 pounds	8/8/2014	Unicat Services, Alvin, TX
Oct 2014	32	1600 kg	3520 pounds	No Shipment	Unicat Services, Alvin, TX
Nov 2014	58	2900 kg	6380 pounds	11/4/2014; 11/7/2014	Unicat Services, Alvin, TX
Dec 2014	60	3000 kg	6600 pounds	12/5/2014; 12/22/2014	Unicat Services, Alvin, TX
May 2015	65	2769 kg	6091.8 pounds	5/29/2015	VLS Bayport, Pasadena, TX
Jun 2015	84	3758 kg	8267.6 pounds	6/12/2015	VLS Bayport, Pasadena, TX
Jun 2016	3	128 kg	281.6 pounds	6/30/2016	VLS Bayport, Pasadena, TX
1 – 42.6 kg of spent catalyst per canister since early 2015 conversion to new catalyst. – Mr. Michael Steiger e-mail, March 31, 2017.					
2 – Catalyst weight in pounds was calculated by multiplying kilograms (kg) by 2.2.					

The facility could not provide a land disposal restriction notice for D018 hazardous waste that was shipped to Unicat Services or VLS Bayport.

**Violation Noted: The facility failed to submit a one-time written notice to each treatment or storage facility receiving the waste and place a copy in the file as the facility could not provide a land disposal restriction notice for the spent catalyst D018 hazardous waste that was shipped to Unicat Services – TXR000081631 or VLS Bayport – TXR000082015. Violation Noted: The facility offered for transport a hazardous waste for offsite treatment, storage, or disposal and**

**failed to prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22.**

- b) Weekly Inspections of Hazardous Waste Storage Area (HWSA) – The facility does not maintain a HWSA or weekly inspections of a HWSA.
- c) Biennial Report – A 2015 Biennial Hazardous Waste Report was not provided.

**Violation Noted: The facility failed to prepare and submit a single copy of a Biennial Report to the NCDEQ Hazardous Waste Section by March 1 of 2016 covering generator activities during 2015. The facility generated and offered for transport approximately 14,359 pounds of spent catalyst during the months of May 2015 and June 2015 and did not prepare and submit a copy of the Biennial Report to the Section.**

- d) Emergency Preparedness – Thomas Jacobik is the facility’s emergency coordinator. Mike Francesco and Zeb Hill Jr. are the alternate emergency coordinators.
- e) Contingency Plan – The facility maintains a written Spill Prevention Counter Control (SPCC) plan that was dated as August 19, 2016. The facility did not provide or have a written hazardous waste contingency plan.
- f) Training – No hazardous waste training records were provided for review at the time of inspection.
- g) Satellite Accumulation Areas (SAAs) – No SAAs were observed at the time of inspection. Facility personnel explained that there were no SAAs maintained onsite.
- h) Hazardous Waste Storage Areas (HWSA) – No HWSAs were observed at the time of inspection. Facility personnel explained that there were no HWSAs maintained onsite.

- i) Other Waste Streams – The facility shreds hard drives onsite. It was estimated that 1-2 boxes of shredded hard drives are generated a month. At the time of inspection, facility personnel were shredding hard drives into one cubic yard box. The box was unlabeled. There were three cubic yard boxes of un-shredded hard drives waiting to be shredded. These boxes were covered and unlabeled.

**It is recommended that the facility clearly label all containers to communicate their contents.**

The facility claims that the hard drives are excluded under 40 CFR 261.4(a)(13) excluded scrap metal and 40 CFR 261.4(a)(14) shredded circuit boards being recycled. The facility claims that the hard drives shredded at the facility do not contain mercury switches, mercury relays, nickel-cadmium batteries, or lithium batteries. In response to Ms. Heather Goldman’s and Mr. Sean Morris’s concerns regarding potential exposure of employees to heavy metals during the hard drive shredding activities, the facility responded on March 3, 2017 that they are reviewing health and safety practices at the site to ensure compliance with all federal and North Carolina OSHA requirements.

Aerosol containers were observed in the Maintenance 1 Area. Proper management options for waste aerosols were discussed. An unused parts washer and an unused sand blaster was observed in the Maintenance 2 Area. It is a reminder that the facility must conduct a proper waste determination, per 40 CFR 262.11, on all waste generated at the facility, including waste generated from the parts washer and sand blaster, once in operation.

- j) Used Oil – No used oil was observed stored onsite.
- k) Universal Waste – The facility has a used battery recycling program. At the time of inspection, one small universal waste battery container was observed.
- l) Fuel Cells – Apple owns and operates Bloom Fuel Cells that convert natural gas into electricity. These fuel cells are located onsite and include desulfurization units (canisters) that contain a catalyst that is utilized to remove sulfur from natural gas. Benzene, a constituent of natural gas, may also be removed from the natural gas and captured in the desulfurization catalyst. Upon removal of a spent

desulfurization canister from the fuel cell, the removed canister that contains spent catalyst is replaced with a canister and new catalyst. Bloom Energy Corporation personnel conduct the removal and management of the canisters and contained spent catalyst material from the fuel cells. On April 24, 2017, Mr. Michael Steiger with Apple provided an e-mail confirmation of Apple's ownership and operation of the Bloom Fuel Cells, as well as Bloom Energy's monitoring and maintenance of the fuel cells and management, handling, and transport of the spent catalyst material. How Apple and co-generator Bloom Energy Corporation managed the spent catalyst material, after it was removed from the fuel cells over the past three years, was investigated as part of the inspection.

Prior to the February 9, 2017 site visit and based on the "Apple/Bloom Fuel Cells Desulfurization Units Waste Management" document, that was provided during the site visit, the facility claimed the spent units (canisters) were Manufacturing Process Units (MPU) per the 40 CFR 261.4(c) exclusion.

On February 13, 2017, Ms. Goldman submitted an e-mail to Apple representatives. As part of the e-mail was an inquiry into: how the facility is managing the spent desulfurization material; the waste determination for the spent material; dimensions of the spent desulfurization units; concentration of benzene in the spent material and any other RCRA characteristic or listed constituents related to the spent catalyst; amount and weight of spent material generated per month; and transportation records/bill of lading for offsite shipments of spent desulfurization units for the past three years.

On March 3, 2017, Mr. Scott Sidlow with Apple provided a letter that noted that "Bloom analyzed the spent catalyst in other, similar desulfurization units at other sites. Based on that analysis, Apple understands that this catalyst will at times have benzene above 0.5 mg/l. However, several canisters of spent catalyst tested below the 0.5 mg/l levels. The spent catalyst generated at the Maiden site has not been tested". No supporting information was provided to demonstrate (1) specific analytical results, (2) where the spent catalyst that was analyzed was generated, (3) when the analysis occurred, (4) how many samples were taken, or (5) how many canisters were analyzed. The March 3, 2017 response also included two (2) hazardous waste manifests for D018 hazardous waste solid Benzene that was offered for transport from VLS – Bay Port (TXR000082015) on October 28, 2016 and September 16, 2016. The March 3, 2017 response included one Contract for Carriage shipping document for the transport of desulfurization canister crates from the Apple facility to VLS Recovery Services, LLC, 10201 Bay Area Boulevard, Pasadena, TX 77507.

The facility explained in the March 3, 2017 response that they are reviewing managing the spent catalyst under "40 CFR 262.2(e)(1)" through ShoreMet. 40 CFR 262.2(e)(1) does not exist in the regulations and appeared to be a mistake. A letter from the Indiana Department of Environmental Management (IDEM), dated February 24, 2017, that was included as part of the March 3, 2017 response, noted that ShoreMet intends to claim 40 CFR 261.2(e)(1)(i), where materials are not a solid waste when used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed before use.

On March 13, 2017, the Section received an additional USPS Certified Mail response from Mr. Sidlow which included two (2) additional Contract for Carriage shipping documents. The shipment details are included in Table 1.

On March 28, 2017, Ms. Goldman emailed additional questions to Mr. Sidlow requesting reconciliation of information provided regarding shipments of spent fuel cell desulfurization units in 2014. Ms. Goldman specifically asked about an e-mail dated May 11, 2015, from Mr. Nathan Fleischer with Apple, that included information for four 2014 shipments of spent desulfurization materials. Information contained in the May 11, 2015 e-mail was not included with Apple's March 3, 2017 response. A copy of waste characterizations for the spent desulfurization materials removed

from the facility from 2014 – 2017 was also requested.

On March 31, 2017, Mr. Michael Steiger, with Apple, provided an e-mailed written response to Ms. Goldman. Mr. Steiger explained that in early 2015, a different catalyst was used in the desulfurization units that extended the time between unit canister removal and replacement. Mr. Steiger provided an outline of shipments of spent materials from the facility. This information included the months, number of canisters replaced, and approximate weight of catalyst in kilograms, as included in Table 1. The response also included four hazardous waste manifests for D018 hazardous waste solid benzene that was offered for transport from VLS Bayport, Pasadena, TX on July 30, 2015, July 30, 2015, September 16, 2016, and October 28, 2016.

Mr. Steiger's March 31, 2017 response also addressed the request for a copy of waste characterizations for the spent desulfurization materials that were removed in 2014, 2015, 2016, and 2017. Mr. Steiger's response included that "Characterization was performed by Bloom based on generator knowledge in accordance with 40 C.F.R. 262.11." The results of the waste determination were not provided. No other information or supporting documentation has been provided by Apple to demonstrate a waste characterization was performed on spent desulfurization materials generated from the Apple Maiden, NC facility. Based on the information provided it is unclear if the spent material exhibited hazardous constituents above hazardous waste levels. As noted in the March 3, 2017 response from Mr. Sidlow, the spent catalyst generated at the Maiden Apple facility has not been tested. However, based on hazardous waste manifest obtained from the Facility, the non-reclaimed material was managed as hazardous waste by VLS Bayport and Unicat Services.

On April 19, 2017, Ms. Goldman requested shipping documents for 2014, 2015, 2016, and 2017 shipments along with transporter information. In addition, Ms. Goldman requested clarification of who owns, operates, and manages the Bloom Fuel Cells. The Section also requested any shipping documents for spent catalyst that was sent from Unicat to Clean Harbors in 2014.

On April 24, 2017, Mr. Steiger responded via e-mail to the April 19th inquiry. The response included twenty-eight (28) hazardous waste manifests, eleven (11) Contract of Carriage transportation documents, and transporter information. Mr. Steiger clarified that Apple owns the fuel cells and Bloom Energy provides monitoring and maintenance of the fuel cells, as well as manages the removal, handling, and transport of the spent catalyst canisters. Mr. Steiger clarified that documentation was not kept that correlates individual catalyst material to a specific manifest. In addition, all the manifest provided reflect materials from all Bloom fuel cells sent to Treatment, Storage, or Disposal facilities (TSDFs) and not specific materials from the Apple, Maiden, NC facility.

At the time of the inspection, the Section was given a document claiming the MPU Exemption titled "Apple/Bloom Fuel Cells Desulfurization Units Waste Management". Apple claimed that the spent catalyst canisters, which are connected to the Bloom Fuel Cells fall under the Manufacturing Process Unit ("MPU") Exemption found at 40 CFR 261.4(c). As explained in the October 3, 2016 EPA letter from the Office of Resource Conservation and Recovery regarding the Applicability of the Manufacturing Process Unit (MPU) Exemption at 40 CFR 261.4(c) to Filter Canisters, "disconnected canisters are not part of the manufacturing process". In addition, the October 3, 2016 letter notes that "The disconnected canisters are a container of solid waste and the material contained inside the canister is a waste subject to RCRA regulations." The NCDEQ Hazardous Waste Section applies the exclusion 40 CFR 261.4(c) in a manner consistent with EPA's October 3, 2016 directives. The 40 CFR 261.4(c) exclusion does not apply to the spent catalyst canisters.

**Violation Noted: The facility failed to conduct a proper waste determination for spent fuel cell filter waste material.**

#### 10. SITE DEFICIENCIES:

- A. 40 CFR 262.11 – Apple, Inc. is in violation of this regulation in that the facility failed to conduct a proper waste determination for spent fuel cell filter waste material. Apple claimed that the spent catalyst canisters, which are connected to the Bloom Fuel Cells fall under the Manufacturing Process Unit (“MPU”) Exemption found at 40 CFR 261.4(c). As explained in the October 3, 2016 EPA letter from the Office of Resource Conservation and Recovery regarding the Applicability of the Manufacturing Process Unit (MPU) Exemption at 40 CFR 261.4(c) to Filter Canisters, “disconnected canisters are not part of the manufacturing process”. In addition, the October 3, 2016 letter notes that “The disconnected canisters are a container of solid waste and the material contained inside the canister is a waste subject to RCRA regulations.” The NCDEQ Hazardous Waste Section applies the exclusion 40 CFR 261.4(c) in a manner consistent with EPA’s October 3, 2016 directives. The 40 CFR 261.4(c) exclusion does not apply to the spent catalyst canisters.
- B. 40 CFR 262.41(a) – Apple, Inc. is in violation of this regulation in that the facility failed to prepare and submit a single copy of a Biennial Report to the NCDEQ Hazardous Waste Section by March 1 of 2016 covering generator activities during the previous year. The facility generated and offered for transport approximately 14359 pounds of spent catalyst during the months of May 2015 and June 2015 and did not prepare and submit a copy of the Biennial Report to the Section.
- C. 40 CFR 262.20(a)(1) – Apple, Inc. is in violation of this regulation in that the facility offered for transport a hazardous waste for offsite treatment, storage, or disposal and failed to prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22. The facility offered for transport approximately 43,780 pounds of D018 hazardous waste to Unicat Services in 2014, approximately 14,359.4 pounds of D018 hazardous waste to VLS Bayport – TXR000082015 in 2015, and approximately 281.6 pounds to VLS Bayport – TXR000082015 in 2016. This material was transported using a Contract for Carriage document and not a hazardous waste manifest.
- D. 40 CFR 262.12(c) – Apple, Inc. is in violation of this regulation in that the facility failed to offer D018 hazardous waste to a transporter and/or treatment, storage, or disposal facility that had received an EPA identification number.

Apple, Inc. offered D018 hazardous waste to a transporter that had not received an EPA Identification Number.

Based on transportation documents and information provided by facility personnel, Apple, Inc. generated 43,780 pounds of D018 hazardous waste spent catalyst between March 12, 2014 and December 5, 2014 and generated approximately 14,641 pounds of D018 hazardous waste spent catalyst between May 2015 and June 2016 (See Table 1). Apple, Inc. offered the hazardous waste to a company named Expeditors International transport over a total of fourteen (14) shipments. Each of the fourteen shipments were made using a “Contract of Carriage” shipping document and the documents indicated that eleven (11) of the shipments were transported from Apple, Inc. in Maiden, NC to a facility named Unicat Services, located in Alvin, TX, and three (3) of the shipments were transported to a company named VLS Recovery Services, LLC, located in Pasadena, TX. On April 24, 2017, Mr. Steiger provided the addresses, as included below, of the Expeditors International branches, located in the State of Californian and the State of Pennsylvania, that the shipments were coordinated with.

Expeditors International, located at 425 Valley Drive, Brisbane, CA 94005, had not notified as a

hazardous waste transporter or been issued an EPA ID number.

Expeditors International, located at 519 Kaiser Drive, Suite A, Folcroft, PA 19032, had not notified as a hazardous waste transporter or been issued an EPA ID number.

Apple, Inc. offered D018 hazardous waste to two facilities with an EPA Identification Number but neither facility had notified as a Treater, Storer, or Disposer of Hazardous Waste.

Based on transportation documents, and information provided by facility personnel, Apple, Inc. generated 43,780 pounds of D018 hazardous waste spent catalyst between March 12, 2014 and December 5, 2014 (See Table 1). The waste was transported over (11) shipments from Apple, Inc. in Maiden, NC to Unicat Services, located in Alvin, TX. Unicat Services accepted the spent catalyst canisters and repackaged the spent material before manifesting and shipping the hazardous waste to either Veolia ES Technical Solutions – TXD000838896; Clean Harbors San Leon, Inc. – TXD981053770; or Rineco – ARD981057870, which are all notified as RCRA permitted treatment, storage & disposal facilities. The hazardous waste manifests, prepared by Unicat Services, listed the generator of the spent catalyst waste as either Bloom Energy @ Unicat Services – TXR000081631 or Bloom Energy – TXR000081631. Unicat Services – TXR000081631 was notified as a Large Quantity Generator at the time of the 2014 shipments. Unicat Services was not notified as a RCRA permitted Treatment, Storage & Disposal Facility.

Based on transportation documents, and information provided by facility personnel, Apple, Inc. generated 14,641 pounds of D018 hazardous waste spent catalyst between May 2015 and June 2016 (See Table 1). This waste was transported over three (3) shipments from Apple, Inc. in Maiden, NC to VLS Recovery Services, LLC (VLS Bayport), located in Pasadena, TX (See Table 1.) The spent material was treated at VLS Bayport by separating out copper, with the remaining hazardous waste materials manifested and shipped to Clean Harbors San Leon, Inc. – TXD981053770, which is notified as a RCRA permitted treatment, storage & disposal facility. The hazardous waste manifests, prepared by VLS Bayport, listed the generator of the spent catalyst waste as VLS Bayport. VLS Bayport – TXR000082015 was notified as a transfer facility and a Large Quantity Generator at the time May & June 2015 shipments. VLS Bayport was notified as a Large Quantity Generator at the time of the June 2016 shipment. VLS Bayport was not notified as a RCRA permitted Treatment, Storage & Disposal Facility.

- E. 40 CFR 268.7(a)(2) – Apple, Inc. is in violation of this regulation in that the facility failed to submit a one-time written notice to each treatment or storage facility receiving the waste and place a copy in the file as the facility could not provide a land disposal restriction notice for D018 hazardous waste that was transported to Unicat Services – TXR000081631 or VLS Bayport – TXR000082015. The facility offered for transport approximately 43,780 pounds of D018 hazardous waste to Unicat Services in 2014, approximately 14,359.4 pounds of D018 hazardous waste to VLS Bayport – TXR000082015 in 2015, and approximately 281.6 pounds to VLS Bayport – TXR000082015 in 2016.
- F. N.C.G.S. 130A-294.1(e) – Apple, Inc. is in violation of this regulation in that the facility failed to pay an annual fee of one thousand four hundred dollars (\$1,400) for Fiscal Year 2013-2014 and Fiscal Year 2014-2015, totaling two thousand eight hundred dollars (\$2,800). Based on the information provided by the facility, the facility generated more than 2,200 pounds of hazardous waste and operated as a LQG during the months of March 2014, April 2014, May 2014, June 2014, July 2014, August 2014, September 2014, October 2014 November 2014, December 2014, May 2015, and June 2015.

- G. N.C.G.S. 130A-294.1(e) – Apple, Inc. is in violation of this regulation in that the facility failed to pay an annual fee of one seventy-five dollars (\$175) for Fiscal Year 2015-2016. Based on the information provided by the facility, the facility generated more than 220 pounds of hazardous waste and operated as a SQG during the month of June 2016.
- H. N.C.G.S. 130A-294.1(g) – Apple, Inc. is in violation of this regulation in that the facility failed to pay a tonnage fee of seventy cents (\$0.70) per ton or any part thereof of hazardous waste generated during that year up to a maximum of 25,000 tons. Based on information provided by the facility, the facility generated more than 2,200 pounds of hazardous waste during the months of March 2014 through June 2015 and did not pay the required tonnage fee. The facility estimated 26,427 kg (58139.4 pounds) was generated between two fiscal years, 14,080 pounds in fiscal year 2013-2014 and 44,059.4 pounds in fiscal year 2014-2015.

#### 11. COMMENTS AND RECOMMENDATIONS:

- It is recommended that the facility clearly label all containers to communicate their contents.
- The facility should refer to the NCDEQ Hazardous Waste Section Technical Assistance Guidance page located at <https://deq.nc.gov/about/divisions/waste-management/hw/technical-assistance-education-guidance> for more guidance documents, specifically, the Generator Compliance Manual. This document provides examples that will assist as a reference for compliance.

 10/5/2017  
INSPECTOR (DATE)

By Certified Mail  
FACILITY CONTACT

cc: Thomas Jacobik – Apple, Inc.  
Sean Morris – Hazardous Waste Western Unit Compliance Supervisor  
Central Office Files

LASERFICHE FILE TRANSMITTAL FORM  
DIVISION OF WASTE MANAGEMENT  
HAZARDOUS WASTE SECTION

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Your Name: Ann Preston

Document Category: Facility

Document Group: Enforcement (E)

Document Type: Compliance Order (CO)

EPA ID: NCR000149526

Facility Name/Subject: Apple Computer, Inc.

Document Date: 10/05/2017

Description: Compliance Order Docket # 2017-047

Author: Julie S. Woosley

Branch/Unit: Compliance Branch-Resident Inspector Program

Facility/Site Address: 5977 Startown Rd

Facility/Site City: Maiden

Facility/Site State: North Carolina

Facility/Site Zipcode: 28650

Facility/Site County: Catawba

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ROY COOPER  
*Governor*

MICHAEL S. REGAN  
*Secretary*

MICHAEL SCOTT  
*Director*

October 5, 2017

Thomas Jacobik, Operations Manager  
Apple Computer, Inc.  
P.O. Box 38085  
Charlotte, NC 28278

Dear Mr. Jacobik:

The compliance order dated October 2, 2017 had three errors that the Hazardous Waste Section discovered. The following changes were made:

1. On page 2, #10 the June 12, 2015 was changed to October 28, 2016.
2. On page 2, #11 the May 29, 2016 was changed to May 29, 2015.
3. On page 2, #10 the June 12, 201 was changed to June 12, 2015.

Please replace the October 2, 2017 compliance order with the corrected October 5, 2017 compliance order. Apple's right to file a contested case petition will start with receipt of the October 5, 2017 compliance order.

If you have any questions, please contact Ann Preston at (919) 676-1431.

Respectfully,

Julie S. Woosley, Chief  
Hazardous Waste Section  
Division of Waste Management, NCDEQ

Enclosures: October 5, 2017 Short Form Compliance Order with Administrative Penalty,  
Penalty Summary Worksheets and Fee Invoice

cc: Central File-Enforcement  
Ann Preston



ROY COOPER  
*Governor*  
MICHAEL S. REGAN  
*Secretary*  
MICHAEL SCOTT  
*Director*

October 5, 2017

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Registered Agent for Apple Computer, Inc.  
160 Mine Lake Ct  
Ste 200  
Raleigh, NC 27615-6417

**RE: Short Form Compliance Order with Administrative Penalty  
Apple Computer, Inc.  
NCR000149526  
Docket # 2017-047 Corrected**

To Whom It May Concern:

You are listed with the Secretary of State's Office as the registered agent for Apple Computer, Inc. Enclosed is a Short Form Compliance Order with an Administrative Penalty issued to Apple Computer, Inc. If you have any questions, please contact Ann Preston at (919) 676-1431.

Respectfully,

A handwritten signature in blue ink, appearing to read 'Julie S. Woosley', is written over a light blue circular stamp.

Julie S. Woosley, Chief  
Hazardous Waste Section  
Division of Waste Management, NCDEQ

Enclosures: Short Form Compliance Order with Administrative Penalty, Penalty Summary Worksheets and Fee Invoice

cc: Coy Reid, Catawba County Sheriff  
Mick Berry, Catawba County Manager  
Bryan Blanton, Catawba County Emergency Services Director  
Doug Urland, Catawba County Health Director  
Robert L. Smyre, Town of Maiden Mayor  
Todd herms, Town of Maiden Manager  
Tracy Ledford, Town of Maiden Police Chief  
Angela Edmonds, Mooresville Regional Administrative Office Manager  
Laurie Benton DiGaetano, EPA Region 4  
Central Files - Enforcement



State of North Carolina | Environmental Quality | Waste Management  
1646 Mail Service Center | 217 West Jones Street | Raleigh, NC 27699-1646  
919 707 8200 T



ROY COOPER  
*Governor*  
MICHAEL S. REGAN  
*Secretary*  
MICHAEL SCOTT  
*Director*

October 5, 2017

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Thomas Jacobik, Operations Manager  
Apple Computer, Inc.  
P.O. Box 38085  
Charlotte, NC 28278

**RE: Short Form Compliance Order with Administrative Penalty  
Apple Computer, Inc.  
NCR000149526  
Docket # 2017-047 Corrected**

Dear Mr. Jacobik:

Enclosed is a Short Form Compliance Order with Administrative Penalty ("Compliance Order") issued to Apple Computer, Inc., for certain violations of the North Carolina Solid Waste Management Act, N.C.G.S. Chapter 130A, Article 9 (the "Act"), and the North Carolina Hazardous Waste Management Rules, 15A NCAC Subchapter 13A (the "Rules"). The Compliance Order describes the violations identified at your facility.

As a result of the violations of the Act and the Rules, pursuant to N.C.G.S. § 130A-22(a), an administrative penalty of \$40,589.46 is imposed in the Compliance Order. Apple Computer, Inc. may contest this Compliance Order by filing a written petition for a contested case hearing within 30 days of receipt of this Compliance Order in accordance with N.C.G.S. §§ 130A-22(e), 150B-23(a) and 150B-23.2. See the section entitled "Notice of Right to File Contested Case Petition" in the attached Compliance Order. **In addition, is assessed \$2,773.74 for investigative and inspection costs associated with the assessment of the civil penalty pursuant to N.C.G.S. § 130A-22(j). The investigation and inspection cost assessments are due within 60 days. Apple Computer, Inc. is required to pay for the years 2014-2015 and 2015-2016 annual large quantity generator fees, tonnage fees, and for the year 2016-2017 an annual small quantity generator fee. A total amount of \$2,995.30 is required to be paid.**

Please be advised that the Department of Environmental Quality has implemented a department-wide policy to release all penalties assessed against facilities to the media. Therefore, the name of your facility and the penalty amount that has been assessed against the facility may be released to the media.

**If no contested case petition is filed, the administrative penalty must be paid by Apple Computer, Inc. within 60 days of receipt of the Compliance Order by certified check or money order, payable to the Division of Waste Management, and mailed to:**

Julie S. Woosley, Chief  
Hazardous Waste Section  
1646 Mail Service Center  
Raleigh, NC 27699-1646



State of North Carolina | Environmental Quality | Waste Management  
1646 Mail Service Center | 217 West Jones Street | Raleigh, NC 27699-1646  
919 707 8200 T

If you desire to schedule an informal conference to discuss the Compliance Order, please contact Ann Preston at (919) 676-1431. (Scheduling an informal conference will not extend the time limit for filing a contested case petition.)

Respectfully,



Julie S. Woosley, Chief  
Hazardous Waste Section  
Division of Waste Management, NCDEQ

Enclosures: Short Form Compliance Order with Administrative Penalty, Penalty Summary Worksheets and Fee Invoice

cc:

Coy Reid, Catawba County Sheriff  
Mick Berry, Catawba County Manager  
Bryan Blanton, Catawba County Emergency Services Director  
Doug Urland, Catawba County Health Director  
Robert L. Smyre, Town of Maiden Mayor  
Todd herms, Town of Maiden Manager  
Tracy Ledford, Town of Maiden Police Chief  
Angela Edmonds, Mooresville Regional Administrative Office Manager  
Laurie Benton DiGaetano, EPA Region 4  
Central Files - Enforcement



Waste Management  
ENVIRONMENTAL QUALITY

## 2017 INVOICE

ATTENTION: ACCOUNTS PAYABLE  
APPLE INC  
5977 STARTOWN RD  
MAIDEN, NC 28650

### FACILITY LOCATION ADDRESS:

THOMAS JACOBK  
APPLE INC  
5977 STARTOWN RD  
MAIDEN, NC 28650

FACILITY EPA ID #	INVOICE #	INVOICE DATE	AMOUNT DUE	DUE DATE	ENTER AMOUNT PAID
NCR000149526	HW76789	10/02/2017	2,995.30	12/01/2017	

- A. Fee Requirements: Pursuant to North Carolina General Statute 130A-294.1, a Facility must pay fee(s) based on its hazardous waste management activities. The fees are used to support government programs that ensure the safe management of hazardous waste. Failure to pay the required fees could result in an enforcement action with a penalty.
- B. Invoice amount is based on the generator status as of the invoice date and includes any past-due balances. A 10% late-payment penalty has been assessed for unpaid annual fee balances by fiscal year.
- C. In accordance with N.C.G.S. § 147-86.23, a facility may petition for waiver of any late-payment penalty but the Hazardous Waste Section will only grant a waiver for good cause shown.

FACILITY STATUS	FEE	TONNAGE	AMOUNT DUE
SMALL QUANTITY GENERATOR	\$175.00	-----	\$175.00
		PAST DUE	\$2,820.30
		CREDIT	\$0.00
		TOTAL AMOUNT DUE	\$2,995.30

### D. Remit Payment:

To pay via eCheck or credit card, go to <http://deq.nc.gov/about/divisions/waste-management/hazardous-waste-section/hw-epayments>. You will need your facility's EPA ID# and invoice number, as well as your bank routing and account numbers for eChecks. There is no fee for electronic transfers. Partial payments are not allowed with this payment method.

To pay via mail with a paper check or money order, please make payable to **NC Hazardous Waste Section**. Include **EPA ID#** and **Invoice #** on check. Please note per NC General Statute (G.S. 25-3-506), a \$25.00 processing fee will be charged on all returned checks. Please return a copy of this invoice with your payment

ATTN: NC DIVISION OF WASTE MANAGEMENT  
HAZARDOUS WASTE SECTION  
1646 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1646

**North Carolina Department of Environmental Quality  
Division of Waste Management  
Hazardous Waste Section**

In Re: **Apple Computer, Inc.**  
**NCR000149526**  
**Docket # 2017-047 Corrected**

**) SHORT FORM COMPLIANCE ORDER  
) WITH ADMINISTRATIVE PENALTY**

**PRELIMINARY STATEMENT**

This Short Form Compliance Order with Administrative Penalty ("Compliance Order") is issued by the North Carolina Department of Environmental Quality (the "Department"), Division of Waste Management (the "Division") under the North Carolina Solid Waste Management Act, N.C.G.S. Chapter 130A, Article 9 (the "Act"), and the North Carolina Hazardous Waste Management Rules, 15A NCAC Subchapter 13A (the "Rules"). Based upon information received by the Division, the Division has determined that Apple Computer, Inc. ("Apple" or "Facility"), violated certain requirements of the Act and the Rules as set forth in this Compliance Order.

**STATEMENT OF FACTS AND LAW**

1. The Department is required to enforce the Act and the Rules, which govern the management of hazardous waste. This authority, including the authority to assess and recover administrative penalties in accordance with N.C.G.S. § 130A-22, has been delegated to the Director of the Division. The Director has issued a sub-delegation of this authority, including the authority to assess and recover administrative penalties for violations of the Act and Rules, to the Chief of the Hazardous Waste Section (the "Section"), Julie S. Woosley.
2. The United States Environmental Protection Agency ("EPA") has authorized North Carolina to operate the State Hazardous Waste Program in accordance with the Act and the Rules, in lieu of the federal Resource Conservation and Recovery Act ("RCRA") program.
3. Apple is a foreign limited liability company formed under the laws of California. Apple is a "person" as defined in N.C.G.S. § 130A-290(a)(22).
4. Apple operates the main Facility located at 5977 Startown Road, Maiden, Catawba County, NC 28650. Apple also has fuel cells on the parcel which is accessed through 2201 Elbow Road, Newton, NC 28658. The Facility operates primarily as a data center. The Facility includes server rooms, offices, maintenance, and various energy generation areas. The Facility notified the Section on October 4, 2010 that they may generate hazardous waste identified by EPA Hazardous Waste Codes D001, D002, D008, F001, F002, F003, and F005.
5. On February 9, 2017, Ms. Heather Goldman, Environmental Senior Specialist; Mr. Sean Morris, Western Unit Compliance Branch Supervisor; and Mr. Brent Burch, Compliance Branch Head, all with the Section; conducted a Compliance Evaluation Inspection ("CEI") at the Facility to determine compliance with the Act and the Rules.
6. At the time of the CEI, Apple was notified with the Section as a conditionally exempt small quantity generator ("CESQG") and appeared to be operating as a CESQG at the time of inspection. Based on bills of lading and hazardous waste manifests obtained after the CEI, the Facility was operating as a Large Quantity Generator ("LQG") during the months of March 2014, April 2014, June 2014, July 2014, October 2014, November 2014, December 2014, May 2015, and June 2015, and operated as a Small

Quantity Generator ("SQG") during the months of August 2014 and June 2016. A "conditionally exempt small quantity generator" is a generator who generates less than 100 kilograms of hazardous waste in a calendar month. A "large quantity generator" is a generator who generates 1000 kilograms or greater of hazardous waste in a calendar month. A "small quantity generator" is a generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month.

7. Apple currently has no Hazardous Waste Storage Areas (HWSAs) on-site. The Facility shreds hard drives onsite and during the inspection Facility personnel estimated that one (1) to two (2) cubic yard boxes of shredded hard drives are generated per month. Additionally, the Facility has a used battery recycling program. At the time of inspection, one (1) small universal waste battery container was observed.
8. Apple owns and operates Bloom Fuel Cells at the Facility. The fuel cell's function is to convert natural gas into electricity. These fuel cells contain desulfurization units (canisters) that use a catalyst to remove benzene and sulfur from natural gas. This process produces a spent catalyst, which potentially contains elevated levels of benzene (D018).
9. On February 13, 2017, Ms. Goldman e-mailed an Apple representatives seeking information related to the Facility's management of the spent desulfurization catalyst; the waste determination for the spent catalyst; dimensions of the spent desulfurization units; concentration of benzene in the spent catalyst; any other RCRA characteristic or listed waste related to the spent catalyst; amount and weight of spent catalyst generated per month; and transportation records/bill of lading for offsite shipments of spent desulfurization units for the past three years.
10. On March 3, 2017, Mr. Scott Sidlow with Apple provided a letter that noted that "Bloom analyzed the spent catalyst in other, similar desulfurization units at other sites. Based on that analysis, Apple understands that this catalyst will at times have benzene above 0.5 mg/l. However, several canisters of spent catalyst tested below the 0.5 mg/l level. The spent catalyst generated at the Maiden site has not been tested". No supporting information was provided to demonstrate: (1) specific analytical results, (2) where the spent catalyst that was analyzed was generated, (3) when the analysis occurred, (4) how many samples were taken or (5) how many canisters were analyzed. The response also included two (2) hazardous waste manifests for D018 hazardous waste solid Benzene that was offered for transport from VLS – Bay Port (TXR000082015) on September 16, 2016 and October 28, 2016 to Clean Harbors. The response included one (1) Contract for Carriage shipping document, dated June 30, 2016, for the transport of desulfurization canister crates from the Apple Facility to VLS Recovery Services, LLC, 10201 Bay Area Boulevard, Pasadena, TX 77507.
11. On March 13, 2017, the Section received an additional response from Mr. Sidlow which included two (2) additional Contract for Carriage shipping documents. The documents had shipping dates of May 29, 2015 and June 12, 2015.
12. On March 28, 2017, Ms. Goldman emailed additional questions to Mr. Sidlow requesting reconciliation of information regarding shipments of spent fuel cell desulfurization units in 2014. Ms. Goldman specifically asked about an email dated May 11, 2015, from Mr. Nathan Fleischer with Apple, about four shipments of spent desulfurization material. Information contained in the May 11, 2015 email was not included with Apple's March 3, 2017 response, which did not contain 2014 shipment information. A copy of waste characterizations for the spent desulfurization materials removed from the Facility from 2014 – 2017 was also requested by Ms. Goldman on March 28, 2017.
13. On March 31, 2017 Mr. Michael Steiger, with Apple, provided an e-mail response to Ms. Goldman. Mr. Steiger explained that in early 2015, a different catalyst was used in the desulfurization units that extended the time between unit canister removal and replacement. Mr. Steiger provided an outline of shipments of spent materials from the Facility. This information included the months, number of canisters replaced, and approximate weight of catalyst in kilograms. The response also included four hazardous waste manifests for hazardous waste solids, carrying the EPA Waste Code D018 for benzene, that was offered for transport to VLS Bayport, Pasadena, TX on July 30, 2015, July 30, 2015, September 16, 2016,

and October 28, 2016. Mr. Steiger also addressed the Section's request for a copy of waste characterizations for the spent desulfurization materials that were removed in 2014, 2015, 2016, and 2017. Mr. Steiger's response stated that "Characterization was performed by Bloom based on generator knowledge in accordance with 40 C.F.R. 262.11." The results of the waste determination were not provided. No other information or supporting documentation was provided by Apple to demonstrate a waste characterization was performed on spent desulfurization materials generated from the Apple Facility. Based on the information provided it is unclear if the spent material exhibited hazardous constituents above hazardous waste levels. As noted in the March 3, 2017 response from Mr. Sidlow, the spent catalyst generated at the Apple Facility had not been tested. However, based on hazardous waste manifests obtained from the Facility the non-reclaimed material was managed as hazardous waste by VLS Bayport and Unicat Services.

14. On April 19, 2017, Ms. Goldman requested shipping documents for spent catalyst transported in 2014, 2015, 2016, and 2017 along with transporter information. In addition, Ms. Goldman requested clarification of who owns, operates, and manages the Bloom Fuel Cells. The Section also requested any shipping documents for the spent catalyst that was sent from Unicat to Clean Harbors in 2014.
15. On April 24, 2017, Mr. Steiger responded via e-mail to the April 19th inquiry. The response included twenty-eight (28) hazardous waste manifests, eleven (11) Contract of Carriage transportation documents, and transporter information. Mr. Steiger clarified that Apple owns the fuel cells and Bloom Energy provides monitoring and maintenance of the fuel cells, as well as manages the removal, handling, and transport of the spent catalyst canisters. Mr. Steiger clarified that "Bloom Energy, the maintenance provider for the fuel cells, did not maintain documentation that correlated the contents of each individual desulfurization unit to a specific hazardous waste manifest". In addition, Mr. Steiger stated that "For the time frame in 2014 when desulfurization units were sent from Maiden, NC to Unicat, Bloom has provided all of the manifests for spent catalyst transported to TSDF facilities (attached), but these manifests reflect materials from all Bloom fuel cells sent to TSDF facilities during this time, and are not specific to materials from the Maiden, NC facility."
16. At the time of the inspection, the Section was given a document claiming the MPU Exemption titled "Apple/Bloom Fuel Cells Desulfurization Units Waste Management". Apple claimed that the spent catalyst canisters, which are connected to Bloom Fuel Cells fall under the Manufacturing Process Unit ("MPU") Exemption found at 40 CFR 261.4(c). As explained in the October 3, 2016 EPA letter from the Office of Resource Conservation and Recovery regarding the Applicability of the MPU Exemption at 40 CFR 261.4(c) to Filter Canisters, "disconnected canisters are not part of the manufacturing process". In addition, the October 3, 2016 EPA letter notes that "The disconnected canisters are a container of solid waste and the material contained inside the canister is a waste subject to RCRA regulations." The NCDEQ Hazardous Waste Section applies the exclusion 40 CFR 261.4(c) in a manner consistent with EPA's October 3, 2016 directives. The 40 CFR 261.4(c) exclusion does not apply to the spent catalyst canisters.
17. Based on transportation documents and information provided by Facility personnel, Apple generated 43,780 pounds of D018 hazardous waste spent catalyst between March 12, 2014 and December 5, 2014. The waste was transported in (11) shipments from Apple in Maiden, NC to Unicat Services, located in Alvin, TX. Unicat Services accepted the spent catalyst canisters and repackaged the spent material before manifesting and shipping the hazardous waste to either Veolia ES Technical Solutions – TXD000838896; Clean Harbors San Leon, Inc. – TXD981053770; or Rineco – ARD981057870, which are all notified as RCRA permitted treatment, storage & disposal facilities. The hazardous waste manifests, prepared by Unicat Services, listed the generator of the spent catalyst waste as either Bloom Energy @ Unicat Services or Bloom Energy – TXR000081631. Unicat Services – TXR000081631 was notified in RCRAINFO (which is EPA's comprehensive information system) as a Large Quantity Generator at the time of the 2014 shipments. Unicat Services was not notified as a permitted TSDF.

In addition, based on transportation documents and information provided by Facility personnel, Apple generated 14,641 pounds of spent catalyst (D018) between May 2015 and June 2016. This waste was

transported over three (3) shipments from Apple in Maiden, NC to VLS Recovery Services, LLC (VLS Bayport), located in Pasadena, TX. The spent material was treated at VLS Bayport by separating out copper, with the remaining hazardous waste materials manifested and shipped to Clean Harbors San Leon, Inc. – TXD981053770, which is a permitted TSDF. The hazardous waste manifests, prepared by VLS Bayport, listed the generator of the spent catalyst waste as VLS Bayport. VLS Bayport – TXR000082015 was notified as a transfer facility and a Large Quantity Generator at the time May & June 2015 shipments. VLS Bayport was notified as a Large Quantity Generator at the time of the June 2016 shipment. VLS Bayport was not notified a permitted TSDF.

18. As a result of the February 9, 2017 CEI, the Division has determined that Apple violated the following Rules:

a. 40 CFR 262.11:

i. Pursuant to 40 CFR 262.11, adopted by reference at 15A NCAC 13A .0107(a), a person who generates a solid waste, as defined in 40 CFR 261.2, must determine if that waste is a hazardous waste using the following method:

(a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4.

(b) He must then determine if the waste is listed as a hazardous waste in Subpart D of 40 CFR Part 261.

(c) For purposes of compliance with 40 CFR part 268, or if the waste is not listed in Subpart D of 40 CFR Part 261, the generator must then determine whether the waste is identified in Subpart C of 40 CFR Part 261 by either:

(1) Testing the waste according to the methods set forth in Subpart C of 40 CFR Part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or

(2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator must refer to Parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for possible exclusions or restrictions pertaining to management of the specific waste.

ii. Apple violated 40 CFR 262.11, in that the Facility failed to conduct a proper waste determination for spent fuel cell filter material. Apple made a claim that the spent catalyst material generated as part of the Bloom Fuel Cells would fall under the Manufacturing Process Unit exclusion found at 40 CFR 261.4(c). As explained in the October 3, 2016 EPA letter from the Office of Resource Conservation and Recovery regarding the Applicability of the Manufacturing Process Unit (MPU) Exemption at 40 CFR 261.4(c) to Filter Canisters, “disconnected canisters are not part of the manufacturing process”. In addition, the October 3, 2016 letter notes that “The disconnected canisters are a container of solid waste and the material contained inside the canister is a waste subject to RCRA regulations.” The NCDEQ Hazardous Waste Section applies the exclusion 40 CFR 261.4(c) in a manner consistent with EPA’s October 3, 2016 directives. The 40 CFR 261.4(c) exclusion does not apply to the spent catalyst canisters.

b. 40 CFR 262.12(c):

i. Pursuant to 40 CFR 262. 12(c), adopted by reference at 15A NCAC 13A .0107(a), a

generator must not offer his hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received an EPA identification number.

- ii. Apple violated 40 CFR 262.12(c), in that it offered D018 hazardous waste to a transporter that had not received an EPA identification number. Also, Apple offered hazardous waste to Unicat Services and VLS Recovery Services who are not permitted TSDF's.
- c. 40 CFR 262.20(a)(1):
- i. Pursuant to 40 CFR 262.20(a)(1), adopted by reference at 15A NCAC 13A .0107(b), adopted by reference at 15A NCAC 13A .0107(b), a generator who transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, and disposal facility who offers for transport a rejected hazardous waste load, must prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A, according to the instructions included in the appendix to this part.
  - ii. Apple violated 40 CFR 262.20(a)(1), in that they offered for transport hazardous waste for offsite treatment, storage, or disposal and failed to prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22. The Facility offered for transport approximately 43,780 pounds of D018 hazardous waste to Unicat Services in 2014, approximately 14,359 pounds of D018 hazardous waste to VLS Bayport in 2015, and approximately 281 pounds D018 hazardous waste to VLS Bayport in 2016. This material was transported using a Contract for Carriage document and not a hazardous waste manifest.
- d. 40 CFR 262.41(a):
- i. Pursuant to 40 CFR 262.41(a), adopted by reference at 15A NCAC 13A .0107(d), a generator who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States must prepare and submit a single copy of a Biennial Report to the Regional Administrator by March 1 of each even numbered year. The Biennial Report must be submitted on EPA Form 8700-13A, must cover generator activities during the previous year.
  - ii. Apple violated 40 CFR 262.41(a), in that they failed to prepare and submit a single copy of a Biennial Report to the NCDEQ Hazardous Waste Section by March 1, 2016 covering generator activities during the previous year. The Facility generated and offered for transport approximately 14,359 pounds of hazardous spent catalyst waste during the months of May 2015 and June 2015.
- e. 268.7(a)(8):
- i. Pursuant to 40 CFR 268.7(a)(8), adopted by reference at 15A NCAC 13A .0112(a), generators must retain on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to this section for at least three years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The three year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator. The requirements of this paragraph apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under 40 CFR 261.2 through 261.6, or exempted from Subtitle C regulation, subsequent to the point of generation.

- ii. Apple violated 40 CFR 268.7(a)(8), in that they failed to submit a one-time written notice to each TSDF receiving the waste and place a copy in the file as the Facility could not provide a land disposal restriction notice for D018 hazardous waste that was transported to Unicat Services or VLS Bayport. Apple offered for transport approximately 43,780 pounds of D018 hazardous waste to Unicat Services in 2014, approximately 14,359.4 pounds of D018 hazardous waste to VLS Bayport in 2015, and approximately 281.6 pounds of D018 hazardous waste to VLS Bayport in 2016.

### ADMINISTRATIVE PENALTY

N.C.G.S. § 130A-22(a) authorizes an administrative penalty of up to \$32,500.00 per day for each violation of the hazardous waste provisions of the Act, Rules or any order issued pursuant to the hazardous waste provisions of the Act. N.C.G.S. § 130A-22(d) sets forth the factors to be considered in determining the administrative penalty which include the degree and extent of the harm caused by the violation and the cost of rectifying the damage.

15A NCAC 13B .0702 sets forth specific criteria to be considered in addressing the statutory assessment factors which include the type of violation, type of waste involved, duration of the violation, cause of the violation, potential effect on public health and the environment, effectiveness of response measures taken by the violator, damage to private property and the history of non-compliance.

After careful consideration of each factor above, penalties are assessed as follows against Apple for the violations set out in this Compliance Order: for the violation set forth in paragraphs 18. a. \$32,914.12 and for the violations set forth in paragraphs 18.b., c., d. and e. \$7,675.34. Accordingly, a total penalty is imposed in the amount of \$40,589.46.

### CONDITIONS FOR CONTINUED OPERATION

Based upon the foregoing, Apple is hereby ordered to take the following actions:

1. Within sixty (60) days, Apple shall submit the amount of the administrative penalty, by certified check or money order for \$40,589.46, and payable to the Division of Waste Management. The payment should be mailed to:

Julie S. Woosley, Chief  
Hazardous Waste Section  
1646 Mail Service Center  
Raleigh, NC 27699-1646

2. Apple shall immediately correct all violations as stated in this Compliance Order.
3. Within sixty (60) days, Apple shall submit the assessed cost of \$2,773.74 for investigative and inspection costs associated with the assessment of the civil penalty by certified check or money order, and payable to the Division of Waste Management. The payment should be mailed to:

Julie S. Woosley, Chief  
Hazardous Waste Section  
1646 Mail Service Center  
Raleigh, NC 27699-1646

4. Apple is subject to the provisions of N.C.G.S. § 130A-294.1(e), a person who generates 1,000 kilograms or more of hazardous waste, in any calendar month during the year beginning 1 July and ending 30 June, shall pay an annual fee of one thousand four hundred dollars (\$1,400). At the time of the CEI Apple owed

for the years 2014-2015 and 2015-2016, a total amount of \$2,800.00 must be paid within sixty (60) days of receipt of this Compliance Order for acting as a large quantity generator Facility. **(See Attached Invoice)**

5. Apple is subject to the provisions of N.C.G.S. §130A-294.1(g), stating that a person who generates one kilogram or more of acute hazardous waste or 1,000 kilograms or more of hazardous waste in any calendar month during the calendar year shall pay, in addition to any fee under subsections (e) and (f) of this section, a tonnage fee of seventy cents (\$0.70) per ton or any part thereof of hazardous waste generated during that year up to a maximum of 25,000 tons. The Section calculated for calendar years 2014 and 2015 a total of 29 tons generated. A total amount of \$20.30 must be paid within sixty (60) days of receipt of this Compliance Order for large quantity generator tonnage. **(See Attached Invoice)**
6. Apple is subject to the provisions of N.C.G.S. § 130A-294.1(f), a person who generates 100 kilograms or more of hazardous waste in any calendar month during the year beginning 1 July and ending 30 June but less than 1000 kilograms of hazardous waste in each calendar month during that year shall pay an annual fee of one hundred seventy-five dollars (\$175.00). At the time of the CEI Apple owed for the years 2016-2017, a total amount of \$175.00 must be paid within sixty (60) days of receipt of this Compliance Order for acting as a small quantity generator Facility. **(See Attached Invoice)**

### POTENTIAL CONSEQUENCES OF FAILURE TO COMPLY

Apple is hereby advised that, pursuant to N.C.G.S. § 130A-22, each day of continued violation of any requirement of the Act or the Rules constitutes a separate violation for which an additional penalty of up to \$32,500.00 per day may be imposed. If the violation continues, Apple may also be subject to further enforcement, including injunctive action, to prohibit any further generation of hazardous waste and such further relief as may be necessary to achieve compliance with the Act and Rules.

### NOTICE OF RIGHT TO FILE CONTESTED CASE PETITION

Apple has the right to file a contested case petition regarding a matter of law, material fact, requirement, or the penalty set forth in this Compliance Order as allowed by N.C.G.S. § 150B-23. In accordance with N.C.G.S. §§ 130A-22(e), 150B-23(a) and 150B-23.2, any petition for a contested case hearing must be filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6700, along with the appropriate filing fee set by the Office of Administrative Hearings, within 30 days of receipt of the Compliance Order. A copy of the petition for a contested case hearing must also be served on the Division by sending a copy of the petition to:

William F. Lane  
Process Agent for the N.C. Department of Environmental Quality  
1601 Mail Service Center  
Raleigh, NC 27699-1601

Additional information concerning the Office of Administrative Hearings, filing fees for a contested case petition and the appeal process may be found on the official website for the Office of Administrative Hearings, located at [www.oah.state.nc.us](http://www.oah.state.nc.us) or by calling (919) 431-3000.

If a petition for contested case is not timely filed with the Office of Administrative Hearings and served on the Department, payment of the administrative penalty becomes due within 60 days after receipt of the Compliance Order. If a contested case petition is timely filed and served, payment of the administrative penalty is due within 60 days of receipt of a written copy of the final agency decision. If payment is not received as required, the Secretary of the Department of Environmental Quality shall request the Attorney General to commence a civil action in Superior Court to recover the amount of the administrative penalty.

This the 5<sup>th</sup> day of October, 2017

By:   
Julie S. Woosley, Chief  
Hazardous Waste Section

**Division of Waste Management  
Hazardous Waste Section  
Penalty Summary Worksheet**

**Facility Name:** Apple  
**EPA Id. Number:** NCR000149526  
**Docket #:** 2017-047 Corrected  
**Regulation(s) Violated:** 18. a. of the Compliance Order  
**Site Information:** Hazardous waste codes: D018  
Distance to residences: 0.27 miles  
Number of people involved: not provided (Confidential)

**15A NCAC 13B .0702 - Civil Penalty Standards:**

**Consider: (1) Nature of the violation and degree and extent of harm, including at least the following:**

- (i) **Type of violation:** failed to conduct a proper waste determination for spent fuel cell filter material. Apple made a claim that the spent catalyst material generated as part of the Bloom Fuel Cells would fall under the Manufacturing Process Unit exclusion found at 40 CFR 261.4(c). As explained in the October 3, 2016 EPA letter from the Office of Resource Conservation and Recovery regarding the Applicability of the Manufacturing Process Unit (MPU) Exemption at 40 CFR 261.4(c) to Filter Canisters, "disconnected canisters are not part of the manufacturing process". In addition, the October 3, 2016 letter notes that "The disconnected canisters are a container of solid waste and the material contained inside the canister is a waste subject to RCRA regulations." The NCDEQ Hazardous Waste Section concurs with the EPA's position and does not agree with Apple's claim that 40 CFR 261.4(c) applies to spent materials removed from the Bloom Fuel Cells. The 40 CFR 261.4(c) exclusion would not be applicable to the spent catalyst;
- (ii) **Type of waste involved:** benzene;
- (iii) **Duration and gravity of the violation:** duration, degree of deviation and nature and degree of harm were evaluated to determine gravity;
- (iv) **Cause (whether resulting from a negligent, reckless or intentional act or omission):** negligent;
- (v) **Potential effect on public health and the environment:** yes;

Media for Exposure: direct contact, air, surface water, ground water and soil;

Human Health Effect: eyes, skin, nasal, throat lung irritant at ppm levels. CNS effects. Skin exposure causes reddening, burning, edema, may cause systemic toxicity. Corneal damage. Inhalation at moderate concentrations may cause pallor, dizziness & excitation, flushing, labored breathing, chest constriction, headache, weakness. Inhalation of higher concentrations may cause euphoria, excitation, fatigue, cardiac dysrhythmias, seizures, coma, death. Women breathing high levels over many months experienced irregular menstrual periods, & a decrease in size of ovaries. Hemorrhagic pneumonitis highly likely if aspirated into lung. Ingestion of high levels - vomiting, irritation of oral membranes, stomach, GI tract; nausea, vomiting, dizziness, sleepiness, CNS & respiratory depression, convulsions, loss of consciousness, delirium, rapid or irregular heartbeat, death. Long-term (chronic) exposure ( $\geq 1$  year) causes harmful effects on bone marrow, hematological effects, anemia & excessive bleeding, damage to immune system function, disruption of menstrual cycle, spontaneous abortion, stillbirth, increased likelihood of developing diabetes. Acute exposure deaths due to ventricular fibrillation. An inhalation & ingestion carcinogen (Group 1), causing acute leukemia, aplastic anemia, myeloblastic leukemia. Genotoxic (damages genetic material);

Effect on the Environment: Very flammable, with low flashpoint. Very water-soluble. VP = 95 mm Hg, exists as vapor in ambient air. Vapors photo-chemically degraded in the atmosphere, with half-life of ~13 days. Removed from air by rain. High mobility in soil (Log Koc = 1.9). Expected to volatilize from soil & water surface. Does not adsorb to soil, or sediment or suspended particles in aquatic environment. Low bioconcentration potential in aquatic organisms. Aerobically biodegraded in soil and aquatic environment. Little to no anaerobic biodegradation in aquatic environment. Genotoxic to animals. An animal carcinogen, causing tumor development in a wide spectrum of tissues, including blood-lymphoma, leukemia), oral & nasal cavities, liver, stomach, lung, reproductive organs, mammary glands. Effects of high exposures include tumors, skeletal & brain defects, cardiac & reproductive deficits, immunotoxicity, direct toxicity to the bone marrow & blood-forming tissues. Inhalation exposure of pregnant animals resulted in low birth weights, delayed bone formation, bone marrow damage. Causes reproductive & growth deficits in fish, shellfish;

**Penalty Summary Worksheet**

**Facility Name:** Apple  
**EPA Id. Number:** NCR000149526  
**Docket #:** 2017-047 Corrected

- (vi) Effectiveness of responsive measures taken by the violator: not applicable;  
 (vii) Damage to private property: not applicable;  
 (2) Cost of rectifying any damage: not applicable;  
 (3) Amount of money the violator saved by noncompliance: \$26,414.12;  
 (4) Previous record: none.

ASSESSMENT MATRIX		Degree of Deviation from Requirements		
		MAJOR	MODERATE	MINOR
Nature and Degree of Harm	MAJOR	\$6,500-\$1,300	\$5,200-\$1,000	\$3,800-\$700
	MODERATE	\$2,800-\$500	\$2,000-\$300	\$1,300-\$200
	MINOR	\$800-\$130	\$400-\$130	\$130

Value from Assessment Matrix = \$6,500.00  
 +  
 Multi-week/Event  
 # of weeks/events x penalty = not applicable  
 +  
 Compliance History  
 +  
 10% per repeat violation =not applicable  
 +  
 Economic Benefit = \$26,414.12

Any other notations:

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**Total penalty assessed = \$32,914.12**

  
 Signature

10/5/17  
 Date

**Division of Waste Management  
Hazardous Waste Section  
Penalty Summary Worksheet**

**Facility Name:** Apple  
**EPA Id. Number:** NCR000149526  
**Docket #:** 2017-047 Corrected  
**Regulation(s) Violated:** 18. b., c., d. and e. of the Compliance Order

**Site Information:** Hazardous waste codes: D018  
Distance to residences: 0.27 miles  
Number of people involved: not provided (Confidential)

**15A NCAC 13B .0702 - Civil Penalty Standards:**

**Consider: (1) Nature of the violation and degree and extent of harm, including at least the following:**

- (i) **Type of violation:** Apple offered D018 hazardous waste to a transporter that had not received an EPA identification number. Also, Apple offered hazardous waste to Unicat Services and VLS Recovery Services who are not permitted TSDF's; offered for transport a hazardous waste for offsite treatment, storage, or disposal and failed to prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22. The Facility offered for transport approximately 43,780 pounds of D018 hazardous waste to Unicat Services in 2014, approximately 14,359 pounds of D018 hazardous waste to VLS Bayport in 2015, and approximately 281 pounds of D018 hazardous waste to VLS Bayport in 2016. This material was transported using a Contract for Carriage document and not a hazardous waste manifest; failed to prepare and submit a single copy of a Biennial Report to the NCDEQ Hazardous Waste Section by March 1, 2016 covering generator activities during the previous year. The Facility generated and offered for transport approximately 14,359 pounds of hazardous spent catalyst waste during the months of May 2015 and June 2015; and failed to submit a one-time written notice to each TSDF receiving the waste and place a copy in the file as the Facility could not provide a land disposal restriction notice for D018 hazardous waste that was transported to Unicat Services or VLS Bayport. Apple offered for transport approximately 43,780 pounds of D018 hazardous waste to Unicat Services in 2014, approximately 14,359.4 pounds of D018 hazardous waste to VLS Bayport in 2015, and approximately 281.6 pounds of D018 hazardous waste to VLS Bayport in 2016;
- (ii) **Type of waste involved:** Benzene;
- (iii) **Duration and gravity of the violation:** duration, degree of deviation and nature and degree of harm were evaluated to determine gravity;
- (iv) **Cause (whether resulting from a negligent, reckless or intentional act or omission):** negligent;
- (v) **Potential effect on public health and the environment:** yes;

Media for Exposure: direct contact, air, surface water, ground water and soil;

Human Health Effect: eyes, skin, nasal, throat lung irritant at ppm levels. CNS effects. Skin exposure causes reddening, burning, edema, may cause systemic toxicity. Corneal damage. Inhalation at moderate concentrations may cause pallor, dizziness & excitation, flushing, labored breathing, chest constriction, headache, weakness. Inhalation of higher concentrations may cause euphoria, excitation, fatigue, cardiac dysrhythmias, seizures, coma, death. Women breathing high levels over many months experienced irregular menstrual periods, & a decrease in size of ovaries. Hemorrhagic pneumonitis highly likely if aspirated into lung. Ingestion of high levels - vomiting, irritation of oral membranes, stomach, GI tract; nausea, vomiting, dizziness, sleepiness, CNS & respiratory depression, convulsions, loss of consciousness, delirium, rapid or irregular heartbeat, death. Long-term (chronic) exposure ( $\geq 1$  year) causes harmful effects on bone marrow, hematological effects, anemia & excessive bleeding, damage to immune system function, disruption of menstrual cycle, spontaneous abortion, stillbirth, increased likelihood of developing diabetes. Acute exposure deaths due to ventricular fibrillation. An inhalation & ingestion carcinogen (Group 1), causing acute leukemia, aplastic anemia, myeloblastic leukemia. Genotoxic (damages genetic material);

Effect on the Environment: Very flammable, with low flashpoint. Very water-soluble. VP = 95 mm Hg, exists as vapor in ambient air. Vapors photo-chemically degraded in the atmosphere, with half-life of ~13 days. Removed from air by rain. High mobility in soil (Log Koc = 1.9). Expected to volatilize from soil & water surface. Does not adsorb to soil, or sediment or suspended particles in aquatic environment. Low bioconcentration potential in aquatic organisms. Aerobically biodegraded in soil and aquatic environment. Little to no anaerobic biodegradation in aquatic environment. Genotoxic to animals. An animal carcinogen, causing tumor development in a wide spectrum of tissues, including blood-lymphoma, leukemia), oral & nasal cavities, liver, stomach, lung, reproductive organs, mammary glands. Effects of high exposures include tumors, skeletal & brain defects, cardiac & reproductive deficits, immunotoxicity, direct toxicity to the bone marrow & blood-forming tissues. Inhalation exposure of pregnant animals resulted in low birth weights, delayed bone formation, bone marrow damage. Causes reproductive & growth deficits in fish, shellfish;

**Penalty Summary Worksheet**

**Facility Name:** Apple  
**EPA Id. Number:** NCR000149526  
**Docket #:** 2017-047 Corrected

- (vi) Effectiveness of responsive measures taken by the violator: not applicable;  
 (vii) Damage to private property: not applicable;  
 (2) Cost of rectifying any damage: not applicable;  
 (3) Amount of money the violator saved by noncompliance: economic benefit: \$1,175.34;  
 (4) Previous record: none.

ASSESSMENT MATRIX		Degree of Deviation from Requirements		
		MAJOR	MODERATE	MINOR
Nature and Degree of Harm	MAJOR	\$6,500-\$1,300	\$5,200-\$1,000	\$3,800-\$700
	MODERATE	\$2,800-\$500	\$2,000-\$300	\$1,300-\$200
	MINOR	\$800-\$130	\$400-\$130	\$130

Value from Assessment Matrix = \$6,500.00

+

Multi-week/Event  
 # of weeks/events x penalty = not applicable

Compliance History

+

10% per repeat violation =not applicable

+

Economic Benefit = \$1,175.34

Any other notations:

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Total penalty assessed = \$7,675.34

Signature

Date

**MOTION FOR JUDICIAL NOTICE  
EXHIBIT**

**SECTION:**

North Carolina  
Dept. of Env. Quality  
Haz. Waste Section  
v Apple

Maiden Data Center

2017

News Articles

BUSINESS

# Apple clean energy project fined for environmental violations

DON CARRINGTON

OCTOBER 6, 2017

**T**he N.C. Division of Environmental Quality has fined Apple Computer's data center in Maiden more than \$40,000 for violating the state's Solid Waste Management Act.

Correspondence between Apple and state inspectors indicates Apple believed it followed state laws and that Bloom Energy — the maker of the fuel cells that inspectors cited at the data center — was responsible for any waste handling regulations. Bloom collects the hazardous material and transports it to a site in Texas for processing and disposal.

State inspectors disagreed and **Oct. 2 notified the company** of the violations and subsequent fines. Apple was fined \$40,589 and also must pay \$2,773 for investigative and inspection costs associated with the penalty. That's in addition to \$1,400 a year for two previous years, as well as each coming year because it generates 1,000 kilograms or more of hazardous waste.

Violations include a failure to conduct a proper waste determination for spent fuel filter materials, offering hazardous waste to transporters or disposal facilities that haven't received an identification number from the U.S. Environmental Protection Agency, failure to prepare a hazardous waste manifest, failure to submit biennial reports to EPA and state regulators, and failure to maintain records on site.

Apple owns and operates 10 megawatts of biogas fuel cells, which convert natural gas into electricity through electrochemical reaction, instead of combustion. The cells contain desulfurization canisters that filter benzene and sulfur from the natural gas. The spent canisters are considered hazardous material and are subject to state laws.

The state inspected the Maiden site in February.

The initial visit was based on a tip from Lindsay Leveen. A longtime critic of Bloom Energy, Leveen, a chemical engineer and journalist, in 2003 wrote a textbook about fuel cells. Leveen told *Carolina Journal* he also provided information to EPA officials.

*CJ* called Apple's media relations department for comment. At press time, it had not responded.

In December 2015, *CJ* **reported** that Apple's renewable energy claims were misleading. In Apple's 2017 Environmental Responsibility Report the company claims the Maiden center and all other Apple data centers operate on 100 percent renewable energy.

More specifically, Apple claims that since opening in June 2010 the Bloom biogas fuel cells adjacent to the Maiden data center have provided 28 percent of the facility's energy. Apple says solar projects on site and nearby have provided 36 percent; renewable energy certificates account for 36 percent of the power; and investments in other solar projects managed by Duke Energy account for 8 percent.

Those claims are false. The data center gets its power directly from Duke Energy and, like most data centers, backup diesel generators are on site for emergency use. The Bloom fuel cells and the solar projects aren't hooked up to the data center. Electricity generated by the Apple's fuel cells and solar arrays, when it is available, is sold to Duke.

Apple bases its claims on the concept it “offsets” power purchased from Duke by generating power from renewable sources. No public records support the details of Apple’s offset concept, and Apple has refused to make any available. The natural gas used in the Bloom fuel cells is provided by Piedmont Natural Gas, which Duke Energy bought in 2016.

Apple offsets the natural gas use with landfill gas it buys and then adds to the gas pipeline at sites that may be hundreds of miles away. Apple considers this arrangement a renewable energy activity.

The EPA authorizes North Carolina to operate the state hazardous waste program in accordance with federal rules. Lisa Jackson serves as Apple’s vice president of Environment, Policy, and Social Initiatives and reports directly to CEO Tim Cook. Appointed by President Obama, Jackson served as the EPA Administrator from 2009 to 2013.

BUDGET &amp; TAXES, BUSINESS, STATE GOVERNMENT

## Analysts Call Apple Renewable Energy Claims ‘Lies’

DON CARRINGTON

DECEMBER 2, 2015

**R**ALEIGH — California-based Apple promotes its 500,000-square-foot data center in Maiden, N.C., by saying it runs “100 percent” on renewable energy even though the facility continues to get all of its electricity from Duke Energy, a public utility that primarily generates electricity using coal, nuclear power, and natural gas.

But an Austria-based researcher who is familiar with the project called Apple’s claim “a boldfaced lie” — a sentiment echoed by state House Majority Leader Mike Hager, R-Rutherford, who chairs the Joint Legislative Commission on Energy Policy. And a former economist with the Federal Energy Regulatory Commission called the claim “misleading.”

Apple bases its claim on the concept that it “offsets” power purchased from Duke by generating power from renewable sources, even though Apple does not make it clear that the energy powering the Maiden facility comes from Duke Energy’s traditional mix of fuels. There are no public records supporting the details of Apple’s offset concept as a way of measuring its participation in renewable energy.

Apple is not alone in making such claims. Amazon Web Services has stated that the energy produced by a 22,000-acre wind farm near Elizabeth City will power a data center near Dulles International Airport in Virginia. In fact, the data center is purchasing and will continue to purchase electricity from Dominion Power, the local utility. The wind farm is not and cannot be connected directly to Amazon’s Virginia data center.

Apple representatives have refused to answer a series of queries from *Carolina Journal* seeking details about the company’s electricity consumption at the data center or details about the sources it uses to offset energy purchased from Duke.

### Apple power arrangements

Apple owns a 20-megawatt solar farm and a 10-megawatt fuel cell system adjacent to the data center, but the electricity generated by the solar farm and fuel cell system is sold to Duke and does not provide power for the building.

The fuel cell system runs on natural gas purchased from Piedmont Natural Gas even though Apple has used promotional materials to suggest it actually runs on biogas from nearby landfills. Apple has a second solar farm located about 11 miles away in Conover. A third solar farm is located six miles away, and a fourth solar farm is located nine miles away. They should be completed by the end of the year. A second data center building is under construction.

Apple spokeswoman Alisha Johnson did not answer questions by phone or email from *CJ* regarding this report. Instead, Johnson referred *CJ* to Apple’s Environmental Responsibility Report, which includes the renewable energy claims about the solar farm and fuel cell array at Maiden.

She also refused to answer follow-up questions, instead giving this response: “As I mentioned to you before, our 2015 Environmental Responsibility Report and our renewable resources page on our website have the latest data on our Maiden facility.”

### ‘Why Is Apple Lying?’

In August, Truthout, a left-leaning California-based organization, published a scathing criticism of Apple’s claims titled “Why Is Apple Lying About Powering Its Data Centers With Renewable Energy?” The author, Nicki Lisa Cole, is a research fellow at the Institute for Advanced Studies on Science and Technology and Society in Graz, Austria. A longtime Apple critic, Cole is writing a book about the popularity and hidden costs of Apple products.

Cole noted that Apple’s interest in investing in renewable energy surfaced after the Maiden facility opened in 2010 and appears to be the result of a critical report by Greenpeace dealing with energy consumption at large data centers.

After Greenpeace commended Apple for pledging in a May 2015 report to power its data centers with renewable energy, “countless headlines praising Apple followed,” Cole wrote.

“But dig below the slick PR surface of Apple’s claims and celebratory headlines, and one finds that the jewel of Apple’s data centers, its facility in Maiden, N.C., is not powered by renewable energy at all, though the company states in its 2014 Environmental Responsibility Report that it has been ‘100 percent renewable since opening in June 2010,’” wrote Cole.

“Purchasing offsets is not the same as actually powering something with renewable energy,” she wrote. She noted that Apple buys all of the energy it needs from Duke Energy. “What all of this amounts to is a boldfaced lie on Apple’s part,” she wrote.

Apple spokeswoman Johnson did not respond to a request from *CJ* to comment on Cole’s story.

The nonprofit Institute for Energy Research in Washington, D.C., in March released a critique of corporate renewable energy claims that included Apple.

IER’s Travis Fisher published the analysis titled “Busting the ‘100 Percent Renewable’ Myth.” Fisher, a former intern with the John Locke Foundation, spent seven years as an economist with the Federal Energy Regulatory Commission before joining IER.

“Many companies such as Apple and Google claim that they get their electricity from 100 percent renewable sources. At best, this claim is misleading and deceptive. We cannot find a single instance of a large company actually going ‘100 percent renewable.’ The reality is that as long as these companies are connected to the electric grid, they still get the vast majority of their electricity from conventional sources such as coal, natural gas, and nuclear power, and are therefore not 100 percent renewable,” wrote Fisher.

### **Duke Energy**

Duke Energy economic development officials played a key role in recruiting the data center for North Carolina. Starting in 2006 they spent three years working on the project that was announced to the public in 2009.

“Power costs and reliability are a data center’s primary concerns. We were able to convince Apple that we were capable of providing the low cost and reliability they needed for their operation,” Duke vice president Clark Gillespy stated in a project summary published by Duke.

“The great thing about a data center is that they run full-out, 24/7, with no shifts and no seasonality. It’s the type of customer where the meter spins and spins at an exponential pace. It may be the most ideal customer we could have. We fully expect Apple to be one of our top 10 customers in the Carolinas,” Duke’s director of business development, Stu Heishman, wrote in the same project summary.

House Majority Leader Mike Hager, R-Rutherford, was a Duke Energy engineering manager from 1995–2003. He had the responsibility for the operation and maintenance of five coal-burning units. Hager and other legislators have tried to eliminate or freeze North Carolina’s renewable energy standards, which they say are costly to consumers.

He told *CJ* he was not shocked by Apple’s misrepresentations regarding its 100 percent renewable claim. “If you tell a lie often enough you start believing it,” Hager said.

“Misunderstandings and misinformation from renewable advocates have made the discussion over renewables confusing. I think it is purposeful, because they want folks to think that this [solar] is a lower-cost energy, that it is dispatchable” — meaning it can be turned on or off in a short period of time — “and that it is easily obtained. But it is not dispatchable. You don’t get it when you need it, and it is costly,” Hager added.

### **Apple’s claims**

Under the heading “Environmental Responsibility,” Apple’s website says:

Since 2012, all our data centers have been powered by 100 percent renewable energy sources. That means no matter how much data they handle, there is a zero greenhouse gas impact on the environment from their energy use. These data centers use renewable energy sources like solar, wind, biogas fuel cells, micro-hydro power, and geothermal power from onsite and locally obtained resources. On any

given day, our data centers will use renewable energy to serve tens of billions of messages, more than a billion photos, and tens of millions of FaceTime video calls. They also run services like Siri, the iTunes Store, the App Store, and Maps. So every time a song is downloaded from iTunes, an app is installed from the Mac App Store, or a book is downloaded from iBooks, the energy Apple uses is provided by nature.

Our Maiden, N.C., data center has earned the LEED Platinum certification from the U.S. Green Building Council — the first data center of its size to be so honored. On any given day, between 60 and 100 percent of the energy it uses is generated onsite through our biogas fuel cells and two 20-megawatt solar arrays — the nation's largest privately owned renewable energy installation. And we'll finish another 17-megawatt solar array later this year. We purchase any remaining power we need from entirely clean sources located within North Carolina.

Additional details about the Maiden data center from the 2015 Environmental Responsibility Report:

"It generates 167 million kilowatt-hours of renewable energy per year, enough to power the equivalent of 12,700 North Carolina homes. And we'll finish another 17-megawatt solar array, capable of producing 39 million kilowatt-hours per year, later in 2015."

A table stated that the Maiden facility was 100 percent renewable since opening in June 2010, with "actual renewable energy use" as follows: solar, 39 percent (from two separate solar arrays); fuel cells, 37 percent; and NC GreenPower, 24 percent. (NC Green Power is a nonprofit that allows consumers to support the production of renewable energy.)

#### Details not disclosed

Fully dissecting Apple's claims requires more information than Apple will share. *CJ* asked Apple for the peak megawatt load at the existing building in Maiden and what it would be after the new building is put in service. Apple did not respond. *CJ* also asked for the annual megawatt-hours used by the existing building and the anticipated megawatt-hours required with the addition of the new building, but again Apple did not respond.

A closer look at the company's claimed renewable energy sources for the data center reveals several gaps:

- Apple claims that two solar installations were responsible for 39 percent of its power. Apple fails to mention that they operate only at about 24 percent of capacity because they produce power only when the sun is out. Apple will not share the actual megawatt-hours produced by each solar installation and the time periods they were producing. The electricity produced by the solar installations is sold to Duke Energy.
- Apple claims fuel cells provided 37 percent of its power. The fuel cell installation is relatively new technology that produces electricity through a chemical reaction. Apple's system is manufactured and operated by Bloom Energy. It runs on natural gas supplied by Piedmont Natural Gas even though Apple has led people to believe that it runs on biogas extracted from nearby landfills. The electricity produced by the fuel cells is sold to Duke Energy.

Initially, Apple contracted with Element Markets, a Texas company that processes landfill gas to obtain a quality that can be added to natural gas lines where it is metered and sold to Apple or other entities. Apple does not share exactly how much natural gas the fuel cell installation consumes or how much biogas is purchased to offset the natural gas usage. Piedmont Natural Gas gives Apple credit for its biogas purchases on its gas bill.

- Apple claims that NC Green Power was the source for 24 percent of its power. Customers participating in the NC Green Power program, including Apple, "continue to receive electric service from their local utility and pay for energy used under the utilities' applicable rate schedules," according to NCGP's current program plan. "The electric energy purchased from the renewable resources through the NCGP program will not physically be delivered to the participating NCGP customer but will displace electric energy that would otherwise have been produced from traditional generating facilities for delivery to customer."

Apple and other NCGP customers purchase "blocks" of energy from small solar or hydro producers. *CJ* was unable to determine how much Apple has spent on the program, and NCGP will not answer questions about an individual customer.

Not included in Apple's environmental reports is the company's reliance on diesel generators. According to a state air quality permit, as a backup power source the data center has 24 2.25 MW diesel generators for a total capacity of 54 MW.

## Apple's EPA ties

Two former senior officials with the U.S. Environmental Protection Agency guide Apple's messaging about renewable energy.

Spokeswoman Johnson joined Apple in September after working as a senior adviser on climate change for U.S. Secretary of State John Kerry. Before that, she spent four years with the EPA, first as the press secretary and then as deputy associate administrator for external affairs and environmental education.

Lisa Jackson was EPA administrator from 2009 to May 2013, when she joined Apple as vice president for environmental initiatives. She reports directly to Apple president Tim Cook.

In an April 2014 message about Apple's environmental progress, Jackson stated, "Every one of our data centers is powered entirely by clean sources such as solar, wind, and geothermal energy. So whenever you download a song, update an app, or ask Siri a question, the energy Apple uses is provided by nature."

*Don Carrington is executive editor of Carolina Journal.*